

ED 345 846

PS 020 536

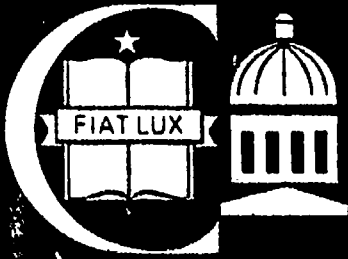
AUTHOR Halfon, Neal; And Others  
 TITLE Health and Mental Health Service Utilization by Children in Foster Care in California. California Policy Seminar Research Report.  
 INSTITUTION California Univ., Berkeley. California Policy Seminar.  
 PUB DATE 90  
 NOTE 146p.  
 PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC06 Plus Postage.  
 DESCRIPTORS \*Adolescents; \*Child Health; \*Children; Child Welfare; Early Intervention; \*Foster Care; Foster Children; Health Care Costs; \*Health Services; Hospitalized Children; Mental Health; Questionnaires  
 IDENTIFIERS \*California; Policy Implications; \*Service Utilization

## ABSTRACT

This report examines the use of health care services by children enrolled in Medi-Cal, California's counterpart to Medicaid, and the Child Health and Disability Prevention (CHDP) program. Expenditures related to these services are also examined. Data for the report were derived from utilization and expenditure data from Medi-Cal and CHDP. Analysis of the data revealed that, in comparison to other children, children in foster care: (1) use more Medi-Cal services, which cost more per child; (2) are more likely to use mental health services; (3) are hospitalized longer; and (4) are less likely to receive CHDP services. The following policy implications were drawn from the study: (1) there is a need for early intervention and prevention services for foster care children; (2) CHDP services could be better utilized by foster care children; and (3) there is a need for more information about the health of foster care children. Appendices include a series of 11 figures and 23 tables that present the data discussed in the report; a listing of standards for health care services for children in out-of-home care; a discussion of coordination of health care services for foster care children; and a survey for foster parents. A list of 30 references is provided. (BC)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*



U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

- ☒ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

# HEALTH AND MENTAL HEALTH SERVICE UTILIZATION BY CHILDREN IN FOSTER CARE IN CALIFORNIA

by

Neal Halfon, Gale Berkowitz, and Linnea Klee

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

Holly E.  
Brown

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)."

California Policy Seminar  
Research Report  
1990

**HEALTH AND MENTAL HEALTH SERVICE  
UTILIZATION BY CHILDREN IN  
FOSTER CARE IN CALIFORNIA**

Neal Halfon, Gale Berkowitz, and Linnea Klee

California Policy Seminar  
Research Report

Principal Investigator:

Neal Halfon, M.D., M.P.H., UCB-UCSF Joint Medical Program,  
and Center for the Vulnerable Child, Children's Hospital,  
Oakland, California

with

Gale Berkowitz, Dr.P.H., and Linnea Klee, Ph.D.,  
Center for the Vulnerable Child

Published by  
California Policy Seminar  
University of California  
1990

**Copyright 1990 by the Regents  
of the University of California**

**All Rights Reserved**

**California Policy Seminar  
University of California  
109 Moses Hall  
Berkeley, CA 94720**

The California Policy Seminar, which funded this study, is a joint program of the University of California and state government to link systemwide University resources with state policy concerns. The Seminar sponsors research, conferences, seminars, and publications pertaining to public policy issues in California.

This analysis was supported by the Seminar's Policy Research Program. The views and opinions expressed in this report are those of the authors and do not necessarily represent the California Policy Seminar or the Regents of the University of California.

## **CONTENTS**

List of Figures and Tables	vii
Acknowledgments	xi
Executive Summary	xiii
Introduction	1
Children in Foster Care in California	1
Health and Mental Health Status of Children in Foster Care	2
Health and Mental Health Service Needs of Children in Foster Care	3
Medi-Cal Coverage for Children in Foster Care	3
Project Aims	5
Methodology	6
Availability and Limitations of the Data Sources	9
Findings	10
Overall Medi-Cal Program Utilization	10
Distribution of Expenditures	10
Hospital Inpatient and Outpatient Utilization	11
Physician Contacts	11
Condition-Specific Utilization and Expenditures	12
Mental Health	12
Preventive Services--Child Health and Disability Prevention (CHDP) Program	13
Summary and Discussion of Findings	14
Policy Implications	17
Appendices	
Appendix A: Figures and Tables	21
Appendix B: Standards for Health Care Services for Children in Out-of-Home Care	71
Appendix C: Coordinating Health Care Services for Children in Foster Care	72
Appendix D: Survey of Foster Parents in California	74
Notes	81
References	83

## **LIST OF FIGURES AND TABLES**

- Figure 1. Number of Children in Foster Care in California, 1979-88  
Figure 2. Average Age of Children in Foster Care in California, 1979-88  
Figure 3. Medi-Cal Users by Amount of Annual Payments, 1988  
Figure 4. Distribution of Medi-Cal Payments for Foster Care, 1988  
Figure 4A. Distribution of Medi-Cal Payments, 1988  
Figure 5. Distribution of Medi-Cal Payments for Foster Care for Physician Contacts, 1988  
Figure 6. Adjusted Annual Medi-Cal Payments per User for Physician Contacts, 1988  
Figure 7. Corrected Medi-Cal Annual Hospitalization Rates for Specific Diagnoses for Children Under 18 Years of Age, 1988  
Figure 8. Average Length of Medi-Cal Hospital Stays for Children Under 18 Years of Age, for Specific Diagnoses, 1988  
Figure 9. Age-Adjusted Medi-Cal Hospital Payments per Eligible for Children Under 18 Years of Age, for Selected Diagnoses, 1988  
Figure 10. Age-Adjusted Medi-Cal Outpatient Utilization Rates for Children Under 18 Years of Age, for Specific Diagnoses, 1988  
Figure 11. Medi-Cal Mental Health Service Utilization: Foster Care as Percentage of Program Users Under 18 Years of Age, 1988
- Table 1. Medi-Cal Utilization and Expenditure Statistics on Children Under 18 Years of Age, 1988  
Table 2. Medi-Cal Activity Concerning Users by Amounts of Payments for Children Under 18 Years of Age, 1988  
Table 3. Medi-Cal Program Payments by Provider Type During Calendar Year 1988 for Foster Care Children Under 18 Years of Age  
Table 4. Medi-Cal Inpatient Hospital Information--Discharges, Days, and Payments for Children Under 18 Years of Age, 1988  
Table 5. Medi-Cal Inpatient Hospital Information--Distribution of Hospital Users by Days for Children Under 18 Years of Age, 1988

- Table 6. Medi-Cal Program--Distribution of Outpatient Visits for Children Under 18 Years of Age, 1988
- Table 7. Selected Medi-Cal Information Involving Physician Contacts by Children Under 18 Years of Age--Unuplicated Users of Service, 1988
- Table 8. Selected Medi-Cal Information Involving Physician Contacts by Children Under 18 Years of Age--Units of Service, 1988
- Table 9. Selected Medi-Cal Information Involving Physician Contacts by Children Under 18 Years of Age--Medi-Cal Payments, 1988
- Table 9.1. Selected Medi-Cal Information Involving Physician Contacts by Children Under 18 Years of Age--Distribution of Payments, 1988
- Table 10. Selected Medi-Cal Information Involving Physician Contacts by Children Under 18 Years of Age--Utilization Rates for Selected Services, 1988
- Table 11. Selected Medi-Cal Information Involving Physician Contacts by Children Under 18 Years of Age--Age-Adjusted Payments per User, 1988
- Table 11.1. Selected Medi-Cal Information Involving Physician Contacts by Children Under 18 Years of Age--Payments per User, 1988
- Table 12. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Age-Adjusted Hospital Utilization Rates, 1988
- Table 12.1. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Hospital Discharges for Total Program, 1988
- Table 12.2. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Hospital Discharges for Foster Care, 1988
- Table 13. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Age-Adjusted Average Lengths of Stay, 1988
- Table 13.1. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Hospital Days for Total Program, 1988
- Table 13.2. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Hospital Days for Foster Care, 1988
- Table 14. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Age-Adjusted Hospital Inpatient Payments per Eligible, 1988
- Table 14.1. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Medi-Cal Payments for Total Program, 1988
- Table 14.2. Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses, for Children Under 18 Years of Age--Medi-Cal Payments for Foster Care, 1988



- Table 15. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Age-Adjusted Utilization Rates for Outpatient Services, 1988
- Table 15.1. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Unduplicated Users of Service, 1988
- Table 15.2. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Unduplicated Users of Service for Foster Care, 1988
- Table 16. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Age-Adjusted Visits per User, 1988
- Table 16.1. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Total Program Visits, 1988
- Table 16.2. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Visits for Foster Care, 1988
- Table 17. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Age-Adjusted Medi-Cal Payments per Eligible, 1988
- Table 17.1. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Medi-Cal Payments, 1988
- Table 17.2. Medi-Cal Information Involving Outpatient Services, by Diagnoses, for Children Under 18 Years of Age--Medi-Cal Payments for Foster Care, 1988
- Table 18. Medi-Cal Mental Health Service Information for Children Under 18 Years of Age, 1988
- Table 19. Medi-Cal Mental Health Service Information for Children Under 18 Years of Age--Users of Services, 1988
- Table 20. Medi-Cal Outpatient Mental Health Service Information for Children Under 18 Years of Age, 1988
- Table 21. Medi-Cal Inpatient Mental Health Service Information for Children Under 18 Years of Age, 1988
- Table 22. CHDP Program Utilization Statistics for Children Under 18 Years of Age, 1986-87
- Table 23. CHDP Program Utilization Statistics, Referrals for Selected Services for Children Under 18 Years of Age, 1986-87

## **ACKNOWLEDGMENTS**

The authors wish to thank the following people for their valuable contributions to earlier versions of this report: Betsy Burke, Sue North, Ruth Range, Ed Schor, and Alan Watahara. We would especially like to thank Paul Newacheck, John Keith and the staff at the Center for the Vulnerable Child for their ongoing assistance in the development and completion of this project. We hope that this report adequately addresses their comments and accurately reflects the health status of children in foster care in California.

## **EXECUTIVE SUMMARY**

After a substantial decline from 1979 to 1982, the number of children entering foster care in California has increased dramatically, doubling from 31,288 in 1982 to 64,250 in 1989. The average age of children in foster care has declined since 1979, with children under two years old representing the fastest growing age group entering the system. Both the rapid increase in the number of foster children and the declining age are partly the result of the crack/cocaine epidemic, which is placing many drug-exposed infants in foster care shortly after birth.

Past studies have indicated that children in foster care have a higher prevalence of acute and chronic medical and mental health conditions. This disproportionate burden of illness has been attributed to abuse and neglect that may have taken place prior to placement in foster care as well subsequent traumas that children experience in the child welfare system.

Currently, there is no information system in California that provides information on both the prevalence of health and mental health conditions of children in foster care and on their utilization of health services. Using Medi-Cal paid claims data, however, it is possible to examine utilization and expenditures for Medi-Cal reimbursed services, comparing (1) children under age 18 in foster care and enrolled in Medi-Cal with other children enrolled in Medi-Cal under 18 years of age; and (2) children in foster care enrolled in the Child Health and Disability Prevention (CHDP) program with those in CHDP but not in foster care. Because there are no independent measures of need for services, it is difficult to judge whether or not utilization, overall or for particular services, is high, low, or normal. Without more reliable measures of need and severity of problems, it is not possible to ascertain whether reported utilization levels are appropriate.

Plans to use the Client Data System (CDS), which the California State Department of Mental Health has developed to monitor mental health service delivery in the public sector, proved unfeasible. The CDS does not identify individuals served, but rather units of service. Consequently, information from the data system describes specific services provided, not individual use of these services.

The Medi-Cal program data presented in this report are based on all paid claims in the fee-for-service program during 1988. Enrollees in the Prepaid Health Plan, accounting for less than 1 percent of Medi-Cal eligible children, were excluded because there are no paid claims data available. Analyses were conducted using the entire population of children under 18 enrolled in the Medi-Cal program rather than a random sample of claims. Therefore, inferential statistics were not required.

## FINDINGS

### **1. Children in foster care use more services, which, on average, cost more per child.**

While children in foster care represent only 4 percent of Medi-Cal eligible children under 18, they account for 5 percent of users and 6.7 percent of expenditures. This represents a 23 percent greater utilization rate and a 41 percent greater expenditure rate than that of other children covered by Medi-Cal. This difference in utilization increases with age.

### **2. Children in foster care are more likely to use mental health services.**

This study examined utilization and expenditures for psychiatric, psychological, Short-Doyle Medi-Cal (public funds for mental health services provided at the county level), and inpatient and outpatient services for mental disorders. Children in foster care were found to use disproportionately more mental health services of all types than other children covered by Medi-Cal. Foster children were nearly 10 times more likely to receive outpatient mental health services and five times more likely to be hospitalized for mental health conditions than children not in foster care.

### **3. Except for mental health services and longer lengths of hospital stays, utilization of services by children in foster care does not differ substantially from other children in Medi-Cal.**

Our study did not find substantial differences in condition-specific utilization and expenditures between children in foster care and other Medi-Cal children.

### **4. Children in foster care are hospitalized longer.**

Children in foster care were slightly less likely to be hospitalized than children covered by Medi-Cal, but once hospitalized, they had nearly twice the length of stay (11 days compared with 6 days on average).

### **5. Children in foster care were less likely than other children to receive Child Health and Disability Prevention (CHDP) program services but had a similar rate of referrals for problem identification at the time of assessment.**

Children in foster care were less likely to receive CHDP services than other Medi-Cal children, but once examined, they demonstrated a rate of referral for identified medical problems similar to that of the general Medi-Cal population.

## POLICY IMPLICATIONS

### **1. The higher rates of mental health utilization and expenditures as well as the higher rates of mental health hospitalizations indicate the need for better early intervention and preventive mental health programs for children in foster care.**

The present study suggests the need for better early intervention and preventive services for children in foster care. This recommendation is based not only on the higher rates of mental health utilization and expenditures for children in foster care, but also on high rates of hospitalization for mental illness and the age-related differences in mental health utilization that demonstrate higher utilization rates for older children in foster care than other children covered by Medi-Cal.

Provision of adequate early intervention and preventive mental health services depends on: (1) providing all children in foster care with timely, appropriate, and initial emotional and developmental assessments; and (2) the availability of a continuum of services, including infant/parent psychotherapy and support services, therapeutic nursery services, home

support services (including therapeutic foster homes), individual and group psychotherapy, and school support services.

Other states have successfully used Title XIX funds (Medicaid) to provide such services. For example, Tennessee uses Title XIX funds to provide therapeutic nurseries and therapeutic foster homes; Arkansas provides in-home early intervention services; and Oklahoma provides in-home drug rehabilitation treatment. California might similarly use Medicaid funds to provide these needed services, thereby maximizing the amount of federal matching funds for these programs. Furthermore, the provision of adequate early intervention and preventive mental health services is consistent with the standards of care recommended by the Child Welfare League of America in 1988 and the 1989 task force report of the California Conference on Health Care for Children in Foster Care.

In September 1989, specific legislation aimed at improving the availability of appropriate mental health screening was passed in California. Senate Bill 370 stipulates that the California Department of Mental Health develop a mechanism for providing mental health screening and assessments for all court wards and dependents by July 1, 1990, and that the department establish and maintain a special system of payment for supplementary mental health services.

This bill appropriates only \$3.7 million in 1990 for this purpose, and current plans call for a screening tool that could be administered by a child welfare worker.

Over the next year it will be crucial to monitor the implementation of SB370 in order to determine whether all eligible children are receiving screening assessments, if these screening assessments are both sensitive and specific, and whether the full continuum of needed services is offered, including early intervention and prevention components. The implementation of SB370 will also provide the opportunity to collect data on the prevalence of mental health problems of children entering the foster care system. This data should prove useful for evaluation of mental health needs and ongoing service development.

## **2. Child Health and Disability Prevention services could be better utilized by children in foster care.**

The CHDP program could be used as an effective vehicle to improve the delivery of preventive and early diagnostic, medical, developmental, and mental health services to all foster children. In order to make CHDP more effective, CHDP services would have to reach a greater number of foster children, provide age-appropriate mental health and developmental screening, and ensure adequate periodic assessments to facilitate ongoing monitoring. This use of the CHDP program is strategically important since a greater number of younger children are entering foster care, and the CHDP program — even under the current guidelines — permits frequent health monitoring visits in the early years.

Enhancement of CHDP services would also be prudent for older foster children. The current CHDP regulations restrict most school-age foster children to one CHDP visit per year. The state can modify the scheduling of foster children and actually provide additional reimbursements to practitioners who conduct developmental and mental health screening of foster children. This modification might be a more cost-effective mechanism of providing the necessary early screening assessment than referring all children in foster care to mental health centers.

Some counties (Alameda and Contra Costa) have already developed special CHDP programs for foster children. A federally funded demonstration project in Alameda County provides a CHDP assessment to all children entering foster care in a specific geographic

area of that county. This information is used to generate a "medical passport" that can be used by subsequent providers as well as by the county CHDP office in order to provide centralized case management and health status monitoring.

The scope of Early Periodic Screening, Diagnosis, and Treatment (EPSDT)/CHDP services is likely to expand as part of the 1989 Assembly Bill 75, which allocates \$310 million of the revenues from the tobacco tax (Proposition 99) directly to hospitals as reimbursement for uncompensated care. In addition, as of November 1989 amendments to Title XIX permit states greater latitude in providing additional services under both Medicaid and EPSDT. Both these recent legislative changes could also permit modifications in the CHDP program to provide expanded services to foster children.

**3. There is a need for more information about the health of children in foster care.**

The present study left many questions unanswered about the health of children in foster care. To better understand the health care needs of these children in order to inform policymaking, a statewide survey of foster families should be conducted. The current study did not address the important issue of access to health services for children in foster care.

To better understand the availability of health services to children in foster care, and the barriers foster parents and social workers face in obtaining those services, additional research is necessary. Questions that future projects should address include:

1. Why do utilization rates between foster children and nonfoster children differ? What is the contribution of mental health status to these differences? Do children in foster care have more medical and mental health problems than other children?
2. Is the utilization of health services by children in foster care appropriate based on their needs?
3. Why do children in foster care have higher utilization rates and expenditures for mental health services than other children covered by Medi-Cal?
4. What are the barriers to obtaining health services for children in foster care?
5. Could CHDP services be better used to meet the special health and developmental needs of foster children?



## INTRODUCTION

### Children in Foster Care in California

After a substantial decline from 1979 to 1982, the number of children entering foster care in California has increased dramatically (See Figure 1)<sup>1\*</sup> (California State Department of Social Services, 1988). From 1982 to 1989 the number of children in foster care doubled, from 31,288 to 64,250. The population of children in foster care is not homogeneous. The reasons for placement vary as well as the age at first placement and duration in foster care.

The average age of children in foster care has declined (See Figure 2) (California State Department of Social Services, 1988). As of 1988, the average age was nine years. The fastest growing age group entering the system is children under two years old (10% in 1988) (California State Department of Social Services, 1988), partly as a result of the crack/cocaine epidemic that is placing many drug-exposed infants in foster care shortly after birth.

Children in foster care in California are equally divided between males and females (49% and 51%, respectively). Forty-one percent of these children are white; 35 percent are black; and 21 percent are Hispanic (3% are other ethnic groups) as compared to the entire child population, which is 46 percent white, 9 percent black, 34 percent Hispanic, and 11 percent other ethnic groups (California State Department of Social Services, 1988).

In California, children are removed from the home for several reasons: neglect (42%), physical or sexual abuse (28%), absent or incapable caretaker (25%), and other reasons including disability of the child, emotional abuse, exploitation, and relinquishment (6%) (California State Department of Social Services, 1988). Recent trends in foster care indicate several changes. Increasingly, children are being placed in foster care for reasons of neglect or physical and/or sexual abuse.

In 1988, children remained in foster care on average for 20 months, up 30 percent from 15 months in 1986. The average age for a child placed in foster care is eight years, but this average obscures the fact that children are more likely to enter the system as infants or as adolescents. As many as a quarter of these children experience three or more placements during their tenure in foster care. Sixty-five percent of children whose care is terminated are reunited with their biologic parents, many within the first 30 days. Another 5 percent are placed with other relatives, and 7 percent are adopted.<sup>2</sup> Nevertheless, reentry into the foster care system is common (20-30% of children) usually because family resources and support systems are inadequate (Schor, 1989).

\*See page 81 for notes.

Separation from the biological family is likely to be traumatic for any child, regardless of age and circumstances. For some children the passage of time in foster care is accompanied by a decrease in their attachment to their biological parents, as foster parents assume a more central role in their lives. Other children neither return to live with their biological parents nor forge new bonds with a substitute parent figure. The complexity of these shifting relationships has strong implications for the physical and mental health of children in foster care as well as for placement policies and the development of programs for children in foster care.

### **Health and Mental Health Status of Children in Foster Care**

Previous studies indicate that children in foster care are less healthy than other children (Hochstadt and Jaudes, 1984; Kavalier and Swire, 1983; Kinard, 1980; Kliman et al., 1982; Schor, 1982; Wald et al., 1985). It has been demonstrated that they are more likely than other children to exhibit both acute and chronic health problems (Hochstadt and Jaudes, 1984; Kavalier and Swire, 1983; Schor, 1982). Moreover, very high rates of emotional, behavioral, and developmental problems are reported among abused and neglected children in foster care (George and Main, 1979; Kinard, 1980; Kliman et al., 1982; Runyan and Gould, 1985; Wald et al., 1985). Studies report that between 35 percent and 95 percent of children in foster care examined for psychological problems are moderately to severely impaired (Frank, 1980; Kliman et al., 1982; Schor, 1989; Swire and Kavalier, 1979). Children in foster care commonly experience a range of emotional and behavioral problems including adjustment reaction disorders, difficulties in school, aggressive and self destructive behavior, low self-esteem, and impaired social relationships (George and Main, 1979; Green, 1978; Kinard, 1980; Kliman et al., 1982; Swire and Kavalier 1979; Wald et al., 1985). Developmental problems are also common among these children. For example, the rapidly increasing population of drug exposed infants in foster care may exhibit neurological and attention disorders, developmental delay, speech problems, disturbed fine motor coordination, sleep and feeding disturbances, and low frustration tolerance (Chasnoff, 1988; Chasnoff et al., 1987; Finnegan and MacNew, 1974; Householder et al., 1982; Ostrea and Chavez, 1979).

Furthermore, the long-term impact of child abuse and neglect on children living in foster care, both on the child and society is not known. Unfortunately, there are few rigorous, long-term studies available to address this question. Retrospective studies of abused children indicate that approximately 20 percent of abused children eventually become juvenile offenders (Lewis et al., 1989). Of the many retrospective studies of juvenile offenders, rates of past abuse and neglect range from 26 to 84 percent (Lewis et al., 1989). The role that appropriate health, mental health, and developmental services might play in preventing these adverse outcomes must be considered.

The data from these studies present a distressing picture of the health and mental health status of children in foster care. This information, however, is from a variety of locations, and many of these studies suffer from limited research designs and other shortcomings. Most of them are based on clinical studies of small populations of children. There is very little information on the health status of children in foster care in California.

A study of health care for children in foster care in California found that foster parents, social workers, and health care providers reported that psychological maladjustments were more chronic, intractable, and progressive among these children than were medical problems



(Klee and Halfon, 1987). While this study did not examine actual prevalence of mental health problems, informants reported through interviews the kinds of problems they commonly encountered. The problems enumerated concur with the literature, showing four major groups: acting-out (angry and destructive behavior, lying, and stealing), depression, a multitude of emotional and behavioral consequences of sexual abuse, and learning-related disabilities (cognitive problems, hyperactivity, and inability to function in school). These studies also reveal that even when services are provided to these children, they often are fragmented and of insufficient quality and duration to have a positive impact. The implication is that after suffering from abuse and neglect in dysfunctional families, these children continue to be neglected by the institution that has been designed to be the guardian of their needs and future development.

### **Health and Mental Health Service Needs of Children in Foster Care**

Currently, children in most California counties do not receive the timely, high-quality, comprehensive care needed to address the complexity of their health problems (Halfon and Klee, 1987). Foster parents in most counties are assigned the important responsibility of maintaining the health of children in their care. However, these parents receive inadequate training or support services to sustain this effort and encounter numerous barriers to available health services. The lack of preplacement health, developmental, and mental health assessments makes it difficult for social workers and foster parents to make appropriate decisions about the child's health care needs.

Social workers, foster parents, health care providers, and social welfare administrators in California agree that mental health conditions are a serious problem among children in foster care, and that these problems are not being satisfactorily evaluated or treated in the state (Halfon and Klee, 1987). Mental health assessments are not routinely administered to these children in most counties. Where they are conducted, it is usually in response to overt manifestations of serious emotional problems or as part of court ordered reunification plans. Less obvious problems tend not to be detected, thereby missing the opportunity for early intervention. There is a critical need for timely and routine assessments and for intragency and interagency coordination to organize and target services toward improvement of the mental health status of children in foster care (Children's Research Institute of California, 1984; Pers, 1976). The recent passage of SB370 is a first step toward the introduction of some of these badly needed services.

### **Medi-Cal Coverage for Children in Foster Care**

Since all federal Title IV-E children in foster care are eligible for Medicaid services, Medicaid through its California counterpart, Medi-Cal, is in a pivotal role to ensure available, high-quality, accessible services for these children. The payment for health and mental health services through Medi-Cal has a profound effect on the organization of services for children in foster care because Medi-Cal can determine the types of benefits to be provided, the professionals who may provide the services, and the rates of reimbursement for services. Unfortunately, this system does not provide adequately for needs in the areas of preventive health, mental health, dental and optical coverage, and other areas (Halfon and Klee, 1987). Furthermore, due to declining reimbursement, fewer pediatricians are participating in the Medi-Cal program (Perloff, 1985).

**There are other important difficulties related to the organization of health services for children in foster care:**

**1. Foster children are solely the responsibility of the social service system, and most social services agencies lack the health care expertise needed for decision making.**

**2. Foster children are moved frequently. While the reasons for the move may be for reunification with a child's biological parents or from a shelter to a long-term home, frequent moves impede the provision of continuity and quality of health care that children need.**

## **PROJECT AIMS**

Understanding the current use of and expenditures for health care services by children in foster care is the first step toward assuring that the Medi-Cal program is being optimally used to meet their health needs. In order to design and administer services to this high-risk population, it is important to have a thorough understanding of what their health and mental health service needs are, how they are being met, what constitute gaps in the current services, and how these gaps might be filled.

The objectives of this project are:

1. To describe the utilization of medical and mental health services by children in foster care in California.
2. To compare the utilization of medical and mental health services by children in foster care to other children served by Medi-Cal.
3. To conduct an analysis of utilization of services by children in foster care using common childhood health conditions as tracer conditions to approximate need for services.
4. To assess the quality of data available for policy and planning purposes.
5. To assess the feasibility of a statewide survey of foster families and social workers based on the information gained in this project in order to improve the analytic capabilities of the state to make decisions affecting this high-risk population.

## **METHODOLOGY**

This report examines service utilization and expenditures for health care by comparing (1) children under age 18 in foster care enrolled in Medi-Cal with other children under age 18 enrolled in Medi-Cal, and (2) children in foster care enrolled in the Child Health and Disability Prevention (CHDP) program to those in CHDP but not in foster care. Comparisons included in this report focus on:

1. Utilization of inpatient hospital services
2. Utilization of outpatient services
3. Payments for these services
4. Utilization of preventive health care services
5. Overall utilization based on program eligibles, users, and expenditures.

An eligible individual is one enrolled in the Medi-Cal program. A user is an eligible who has been provided services paid by Medi-Cal during a specified time period. An unduplicated count of users for a given service is the sum of users who have used that service at least once during the time period, counting each user only once, regardless of the number of services they received of that service type. Expenditures for services are based on paid Medi-Cal claims for services rendered during the time period.

The data for this report were derived from utilization and expenditure data from two California health programs: Medi-Cal and the Child Health and Disability Prevention (CHDP). Children may become eligible for Medi-Cal without cash assistance eligibility, but are otherwise categorically linked, such as through the Aid to Families with Dependent Children (AFDC), and Medically Needy and Medically Indigent programs or Title IV-E. Children in foster care are categorically eligible for Medi-Cal once they are classified as Title IV-E eligible, but not all foster children are Title IV-E eligible.<sup>3</sup> Children placed with relatives can be eligible for Medi-Cal if the biological parents were receiving AFDC.

The CHDP program provides a mechanism for the delivery of preventive health services to all children under 18 years of age living in families with annual incomes less than 200 percent of the federally established poverty level. CHDP providers perform an assessment of children's health that is designed to include a medical history, physical examination, nutritional assessment, vision and hearing screening, and laboratory evaluations including a complete blood count and urinalysis. Based on the results of the exam, the providers make recommendations for referrals for further diagnoses and treatment. CHDP program data provide an indirect means of measuring morbidity in children who have received

CHDP assessments, since CHDP billing forms require providers to note abnormal conditions as well as children referred on the basis of abnormal findings.

The Medi-Cal program data presented in this report were based on all paid claims in the fee-for-service program during 1988. Enrollees in the Prepaid Health Plan, accounting for less than 1 percent of Medi-Cal eligible children, were excluded because there are no paid claims data available. Medi-Cal data selected for the analysis included all children under 18 years of age enrolled in the Medi-Cal program during 1988 (except for Figure 4A, which is based on a 5% sample of paid claims). CHDP data are based on all paid claims for the same age group during FY 1987-88. Because all paid claims for 1988 were used, rather than a random sample of claims, no inferential statistics were required.

The formula used to compute age-adjusted rates (using visits as an example) is shown below:

$$\text{Age-adjusted visit rate} = \frac{[(\text{Visit rate under age 6} \times \text{pop. for under 6}) + (\text{visit rate ages 6-11} \times \text{pop. for 6-11}) + (\text{visit rate ages 12-17} \times \text{pop. 12-17})]}{\text{total population ages 0-17}}$$

Several dimensions of mental health services were used in this report. They included physician contacts with a psychiatrist, services by psychologists, services for which an International Classification of Diseases, Ninth Revision (ICD-9) code for mental disorder was recorded, and Short-Doyle Medi-Cal claims. Short-Doyle provides public funds for mental health services provided at the county level.

The principle method of analysis was to compare utilization and expenditure rates for foster care children as a percentage of the total Medi-Cal program of children under 18 years of age. The standard for basing these comparisons was the ratio of Medi-Cal eligibles in foster care to total program eligibles under 18. Large deviations from this proportion signal disproportionate utilization and/or expenditures.

The formula used to compute utilization rates for any given service was:

$$(\text{Unduplicated users for that service}) / (\text{Eligibles}) \times 1000.$$

Utilization rates were based on the unduplicated counts of actual users of service instead of the number of services per eligible. While the numbers of service per eligible measure volume of utilization, it does not show the number of individual children who needed services for a given condition at any time. Expenditures per eligible reflect the actual payment for services rendered.

A corrected utilization rate was derived so that rates presented in this report appeared consistent with national utilization norms. To achieve this estimate the average monthly eligibles were multiplied by a factor of three. This correction factor of three was used to adjust for differences between the average monthly count of eligibles and an actual annual count of users in order to compute utilization rates but has no effect on the actual differential between the comparison groups. An alternative method for comparing utilization would be to examine paid claims during single months only. Because of monthly variations in eligibles, claims, and utilization, selecting any given month might not provide a representative picture of utilization.

As an additional means to describe utilization and expenditures between the two groups of children (foster children and other Medi-Cal children), comparisons have been made

based on selected tracer conditions: accidents and injuries, acute gastroenteritis, asthma, bacterial meningitis, iron deficiency anemia, malnutrition, pneumonia, and ruptured appendix. Since prevalence of these conditions tends to be low, comparisons based on their rates of occurrence should be interpreted cautiously.

Reports using claims data from the Medi-Cal program were processed using a mainframe computer and prepared by the California Department of Health Services, Medical Care Statistics, and CHDP branches.

## AVAILABILITY AND LIMITATIONS OF THE DATA SOURCES

The original aim of this project was to assess the health and mental health care needs of foster children, to determine their health and mental health service utilization patterns, and to determine how well services were being provided and needs met. The first phase of this project was to evaluate available data sources.

Currently, there is no information system that provides an adequate picture of the prevalence of health and mental health conditions of children in foster care in the state. Paid claims data generated from the Medi-Cal billing process can be used to examine utilization and expenditures for paid services. Since there are no independent measures of need for services, it is impossible to judge whether or not utilization is high, low, or normal. For example, children in foster care are known to have higher rates than other children of mental health and developmental disabilities, and would therefore be expected to have higher rates of service utilization in these areas. Without more reliable measures of need and severity of problems, however, it is impossible to determine what constitutes an appropriate level of utilization of mental health services.

At the outset of this project, a detailed analysis was planned of mental health service utilization in state-funded facilities by children in foster care using the Client Data System (CDS) of the California State Department of Mental Health. Established in 1983 under the Welfare and Institutions Code 5656, CDS was intended to monitor expenditures, service utilization, and client characteristics of clients in the public mental health system. As implemented, the CDS is a statewide database not of individuals served but rather, of units of service (Weston et al., 1989). Consequently, the information from the data system describes specific services, not individual use of the services. Furthermore, it is not possible to get an unduplicated count of users of CDS, as is possible using the Medi-Cal data system.

Given these constraints, the scope of the project was redefined to a more limited analytic framework. The project focused on analyzing current Medi-Cal claims data in order to determine utilization of medical and mental health services by children in foster care compared with utilization by other children covered by Medi-Cal. Without need-based utilization data, these comparisons must be regarded as only descriptive.



## **FINDINGS**

### **Overall Medi-Cal Program Utilization**

In 1988 Medi-Cal spent \$5.8 million each month to provide health care services for an average 50,634 eligible foster children. Table 1 shows that on average, 48 percent of eligible foster children utilized services at a cost of \$237 per user per month. The utilization of services by children in foster care varied with age: service utilization was highest for older foster children (12-17 years of age), followed by the youngest foster children (0-6 years of age), and lastly by the 6-11 year-old group. Expenditures for services followed the same pattern.

Table 1 also demonstrates substantial difference in utilization and expenditures between foster children and the entire population of children covered by Medi-Cal. Whereas children in foster care represent 3.9 percent of Medicaid/Medi-Cal eligibles, they represent 4.8 percent of users and 6.7 percent of total expenditures. Put differently, foster children have a 23 percent greater age-adjusted utilization rate, 41 percent greater expenditure rate per user, and a 70 percent greater cost per eligible than other children covered by Medi-Cal.

Utilization and expenditure differences between foster children and the entire Medi-Cal child population are even greater for certain age groups. Utilization and expenditures for foster children show a steady progression as a percentage of total Medi-Cal expenditures, increasing by age, with school-age children in foster care (6-17 years) accounting for the largest part of this differential. Stated in another way, children in foster care account for 3.5 percent of 6-11-year-olds in Medi-Cal, but they account for 8.3 percent of expenditures for this age group; children in foster care account for 6.3 percent of 12-17-year-old eligibles in Medi-Cal, but 13.3 percent of expenditures for this age group.

### **Distribution of Expenditures**

Analyses of expenditures (Table 2) indicate that children in foster care tend to be higher cost users than other children covered by Medi-Cal. As the distribution in Figure 3 shows, foster children are more likely to have health care expenditures exceeding \$50,000 per user and less likely to be lower expenditure users (under \$50,000).

Figure 4 shows that for children in foster care inpatient hospital utilization accounted for the largest share of total expenditures (35.4%), followed by Short-Doyle Medi-Cal



payments (21%), physician contacts (13.4%), psychologist contacts (5.5%), outpatient services (5.4%), and prescription drugs (5.0%) (Table 3).

### **Hospital Inpatient and Outpatient Utilization**

Children in foster care were less likely to be hospitalized, (5.1% of foster children compared to 5.9% of others), although once hospitalized, children in foster care tended to be hospitalized almost twice as long (10.9 days for foster children compared with 6.0 days for others) (Table 4).

For both populations, children less than six years of age had the highest hospitalization rates, followed by the 12-17-year-old population and the 6-11-year-old population. The average length of hospitalization of six days for children in the general Medi-Cal population was consistent across all age groups. The average length of stay for children in foster care was highest for the 6-11-year-old population and reached over 14 days, nearly 2.5 times that of the general Medi-Cal population. The differential cost per hospitalization between the two groups is likely to be explained by a longer average length of stay for children in foster care (Table 5).

Comparisons of outpatient utilization between children in foster care and other children covered by Medi-Cal show different results (Table 6). Whereas there were significant differences in inpatient utilization, there are no substantial differences in the distribution of outpatient visits.

### **Physician Contacts**

Usually, the child's first point of contact in the Medi-Cal system is through a physician visit (Tables 7-11). Figure 5 shows that the largest portion of payments for physician contacts for children in foster care was outpatient visits (43.4%), followed by prescription drugs (19.1%), and then psychiatry (13.5%).

For most types of physician contact, there were no significant differences in utilization or expenditures between children in foster care and other Medi-Cal children (Figure 6). However, children in foster care were disproportionately more likely to have contact with psychiatrists and to a lesser extent, ophthalmologists.

Even though foster children account for 5 percent of Medi-Cal users less than 18 years of age, they account for 47.5 percent of all psychiatric contacts and 53 percent of all psychiatric visits in 1988. School-age children in foster care (6-17 years old) accounted for the largest part of this differential. Of children covered by Medi-Cal between 6 and 11 years of age, children in foster care accounted for 39 percent of users of psychiatric services, 43.5 percent of all psychiatric visits, and 44 percent of expenditures for psychiatry. Of children 12-17 years of age, children in foster care accounted for 58 percent of users, 60 percent of psychiatric visits, and 55 percent of expenditures in 1988.

## Condition-Specific Utilization and Expenditures

To assess utilization and expenditures according to diagnosis, Medi-Cal paid claims were analyzed according to ICD-9 diagnostic codes. Inpatient and outpatient utilization were separated in the analysis. Comparisons were made between the two groups for all conditions and for five tracer conditions in order to determine whether there were major differences in condition-specific utilization, a proxy measure of prevalence. Five tracer conditions were examined: malnutrition, iron deficiency anemia, asthma, pneumonia, and acute gastroenteritis (Tables 12-17).

For both inpatient and outpatient services, condition-specific comparisons between children in foster care and other children covered by Medi-Cal indicate few substantial differences. The notable exception throughout these analyses is the disproportionate use of services related to mental disorders by children in foster care.

Figure 7 demonstrates that the five leading reasons for hospitalization for children not in foster care were respiratory conditions, pregnancy, digestive conditions, perinatal conditions, and injuries, with mental conditions representing the ninth leading cause of hospitalization. For children in foster care the leading causes for hospitalization were respiratory conditions followed by mental conditions, digestive conditions, pregnancy, injuries, and infectious conditions.

Not only did children in foster care experience a fivefold greater likelihood of hospitalization for a mental illness, but children in foster care had 36 percent longer lengths of stay for mental conditions (Figure 8). Hospital expenditure data also showed that the largest disparity between the two groups occurred for mental conditions, whereby children in foster care cost disproportionately more (Figure 9). Perinatal conditions was the only condition category that reflected substantial differences between the two populations. Whereas foster children have lower rates of hospitalization for perinatal conditions, once hospitalized their average length of stay was 27 percent longer, which was reflected in large differential expenditures (Figures 7-9).

As Figure 10 shows, the leading causes of outpatient visits were respiratory conditions, conditions of the nervous system, injuries, and skin disorders. Mental health conditions represented a small proportion of outpatient visits for children not in foster care, but there was a fivefold difference in utilization for mental disorders by children in foster care.

Specific utilization rates for the tracer conditions examined did not show substantial differences between the foster care and general Medi-Cal populations.

## Mental Health

Table 18 demonstrates that foster children utilized outpatient mental health services at over 10 times the rate of the total Medi-Cal program. Among users of mental health services, expenditures per users for children in foster care were 10 percent higher overall compared with other Medi-Cal children.

As Figure 11 shows, utilization of mental health services by children in foster care was disproportionately high for all categories. Age-adjusted comparisons indicate that children in foster care account for 37 percent of psychiatry visits, 47 percent of psychology visits, 22 percent of psychiatric hospitalizations, 47 percent of Short-Doyle Medi-Cal inpatient utilization, and 27 percent of all other Short-Doyle Medi-Cal utilization (Table 19).

Overall, children in foster care were more likely to: (1) use outpatient mental health services; (2) be hospitalized for inpatient mental health services; and (3) cost more per user of mental health services across all age ranges (Tables 20-21).

Thirteen million dollars were spent for outpatient mental health services for 19,642 children in foster care, while \$20 million were spent on services for 38,169 children not in foster care covered by Medi-Cal (Table 20). Children in foster care were 10 times more likely to have used outpatient mental health services than other children, and they demonstrate 23 percent greater expenditures for these services.

Similar differences were demonstrated for inpatient mental health utilization (Table 21). Nine million dollars were spent to hospitalize 856 children in foster care for mental health reasons, at a cost of \$10,600 per hospitalization. Children in foster care were five times more likely to be hospitalized for mental health conditions. They required approximately 12 percent more in costs per hospitalization and had 25 percent longer average lengths of stay.

#### **Preventive Services – Child Health and Disability Prevention (CHDP) Program**

Children in foster care were 25 percent less likely than other children to use CHDP services during FY 1986-87 (Table 22). There were no differences between children in foster care and other CHDP users in referral rates for follow-up assessments (Table 23).

Among both groups, for those who received an assessment, on average 22 percent were referred for additional diagnostic testing, treatment, or follow-up.

## **SUMMARY AND DISCUSSION OF FINDINGS**

### **1. Children in foster care use more Medi-Cal services and on average cost more per child.**

Children in foster care have higher utilization and expenditure rates than other children covered by Medi-Cal, and this differential in utilization increases with age. Several explanations are possible and need further examination. First, the disproportionately higher rate of mental health service utilization may partially account for these overall differences. Second, differences may be partially due to age-dependent morbidity, with the older children entering foster care less healthy in comparison with younger children in foster care. Third, the differential may reflect the effect on health of long-term foster placement, such that the longer a child is in foster care, the more likely his/her health status may decline.

### **2. Children in foster care are more likely to use mental health services.**

Children in foster care use disproportionately more mental health services of all types than other children in Medi-Cal. In addition, there is a significant age gradient whereby older foster children use psychiatric services at a disproportionately higher rate than younger age groups.

The higher rates of utilization may reflect: (1) higher prevalence of mental health problems resulting from prior abuse and neglect, (2) mental health problems that have developed or have been exacerbated during foster placement, (3) a greater likelihood that children's mental health needs are recognized because they are in the child welfare system, (4) that mental health services have been mandated as part of the reunification process, and (5) a combination of all of the above.

What is difficult to reconcile from these high rates of utilization are other studies that suggested that appropriate mental health services are not routinely available (Klee and Halfon, 1987). Nonetheless, given the higher rates of mental health service utilization, especially those rates for inpatient hospitalizations among older children in foster care, it is important to determine if early intervention and preventive mental health services can improve mental health status and decrease utilization and expenditures for these more expensive services.

Children in foster care can also receive mental health services from other providers who do not participate in the Medi-Cal program through reimbursement from special funds for children with special needs provided to the Department of Social Services. Therefore it is

likely that utilization rates for mental health services among children in foster care presented in this report are conservative estimates of actual mental health service utilization.

To better understand the disproportionately higher rates of mental health service utilization among children in foster care, additional analyses not possible with the current data are necessary. Whether current levels of utilization represent appropriate use of services can only be determined by need-based comparisons.

**3. Except for mental health services utilization and longer lengths of hospital stays, utilization of health services covered by Medi-Cal by children in foster care does not differ substantially from other children covered by Medi-Cal.**

Numerous studies were cited in this report that document higher rates of medical and mental health conditions in this population of children. The present analysis is inconclusive on this point. Only slight differences were found between children in foster care and other children with regard to condition-specific utilization. Except for mental disorder-related utilization, there were few substantial differences in condition-specific utilization and expenditures between children in foster care and other children covered by Medi-Cal.

It is difficult from the data to explain the cause of these similarities and differences. A more comprehensive analysis would include indicators of service availability and barriers to access and more sensitive measures of health needs. In order to address these other issues, the following recommendations are made:

1. Conduct a statewide survey of foster families in California in order to determine the health status of children in foster care, availability of health services, and patterns of need-based utilization. Appendix D presents a description of such a survey using items similar to the National Health Interview Survey, so that results would be comparable with a national sample of children.

2. Study the role of access and availability of health services in determining utilization.

**4. Children in foster care are hospitalized longer.**

Children in foster care were slightly less likely to be hospitalized than other children, but once hospitalized, they stayed substantially longer (11 days compared with six days on average). A large part of this differential may be accounted for by the higher hospitalization rates for children in foster care with mental conditions. The rest of the differential may be explained by: (1) the possibility that children in foster care were sicker when hospitalized, and (2) discharge may be delayed because of the lack of foster homes available to care for medically fragile children.

**5. Children in foster care were less likely to receive CHDP services but were referred for further assessment at similar rates as children not in foster care.**

Children in foster care were less likely to receive CHDP services than other children covered by Medi-Cal, but once examined, they demonstrated a rate of referral for identified medical problems similar to that of the general Medi-Cal population.

While the Department of Social Services does not mandate CHDP exams for children in foster care, many county Departments of Social Services suggest that children in foster

care have a CHDP exam at least once a year. Current data show that only a small percentage of eligible children in foster care are receiving CHDP exams. This low rate of CHDP examinations may mean that many children in foster care receive regular health care from non-CHDP providers or that the health care providers are not billing CHDP for their services. Low CHDP utilization rates may also reflect a lack of availability and access to CHDP services for children in foster care and the lack of direction on the part of social service agencies to secure CHDP services.

This study found no difference between the foster child and the regular CHDP population in the rate of referral for CHDP identified conditions. The fact that the rate of referral for children in foster care and the rest of the CHDP population is similar suggests that the level of morbidity due to medical conditions in both populations is similar, unless there were systematic differences in the types of foster children and nonfoster children screened.



## **POLICY IMPLICATIONS**

### **1. There is a need for early intervention and prevention services for children in foster care.**

The present study suggests the need for better early intervention and preventive services for children in foster care, especially with regard to mental health problems. This recommendation is based not only on the higher rates of mental health utilization and expenditures for children in foster care, but also on high rates of hospitalization for mental illness and the age related differences in mental health utilization that demonstrate higher utilization rates for older children than other children covered by Medi-Cal.

Such early intervention and preventive mental health services are being developed by other states and are consistent with recent recommendations made by national and statewide experts (Center for the Study of Social Policy, 1988; Child Welfare League of America, 1988; Soman et al., 1989). Provision of adequate early intervention and preventive mental health services depends on: (1) providing all children in foster care with timely, appropriate initial and emotional and developmental assessments, and (2) the availability of a continuum of services including infant parent psychotherapy and support services, therapeutic nursery services, home support services including therapeutic foster homes, individual and group psychotherapy, and school support services.

Other states have successfully used Title XIX funds to provide such services. For example, Tennessee uses Title XIX funds to provide therapeutic nurseries and therapeutic foster homes; Arkansas provides in home early intervention services; and Oklahoma provides in-home drug rehabilitation treatment (Center for the Study of Social Policy, 1988). California might similarly use Medicaid funds to provide these needed services, thereby maximizing the amount of federal matching funds for these programs. Furthermore, the provision of adequate early intervention and preventive mental health services is consistent with the standards of care recommended by the Child Welfare League of America (see Appendix B) (Child Welfare League of America, 1988) and the task force report of the California Conference on the Health Care for Children in Foster Care<sup>5</sup> (see Appendix C) (Soman et al., 1989).

In September 1989, specific legislation aimed at improving the availability of appropriate mental health screening was passed in California. California Senate Bill 370 stipulates that the California Department of Mental Health develop a mechanism for providing mental health screening and assessments for all court wards and dependents by July 1, 1990, and that the Department establish and maintain a special system of payment for supplementary

mental health services. This bill appropriates only \$3.7 million in 1990 for this purpose. At the present time, it is not clear what role Medi-Cal and Short-Doyle will play in the process of implementing SB370.

Over the next year it will be crucial to monitor the implementation of the SB370 in order to determine whether all eligible children are receiving screening assessments, if these screening assessments are both sensitive and specific, and whether the full continuum of needed services is offered, including early intervention and prevention components. The legislative history of children's mental health service policy indicates that when funds are insufficient, preventive services are neglected so that treatment of the most severely affected can be provided, that is, too little is offered too late (U.S. Congress, 1986). The implementation of SB370 could also provide the opportunity to collect data on the prevalence of mental health problems of children entering the foster care system. This data should prove useful for evaluation of mental health needs and ongoing service development.

## **2. Child Health and Disability Prevention Services could be better utilized by children in foster care.**

The Child Health and Disability Prevention (CHDP) program potentially represents a comprehensive preventive health and early identification program, but CHDP services reach only a portion of eligible foster children. The CHDP program could be used as an effective vehicle to improve the delivery of preventive and early diagnostic, medical, developmental, and mental health services to all foster children. Modifying and enhancing CHDP services for foster children represent a change in policy that could have maximum impact for a relatively small expenditure. In order to make CHDP more effective, CHDP services would have to reach a greater number of foster children, provide age-appropriate mental health and developmental screening, and ensure adequate periodic assessments to facilitate ongoing monitoring. This use of the CHDP program is strategically important since a greater number of younger children are entering foster care, and the CHDP program, even under the current guidelines, permits frequent health monitoring visits in the early years.

Enhancement of CHDP services would also be prudent for older foster children. The current analyses indicate that older foster children are utilizing much higher rates of mental health services than other children. It is likely that some of these mental health problems could be identified at an earlier and potentially more preventable stage if children were monitored more frequently by CHDP providers. The current CHDP regulations restrict most school-age foster children to one CHDP visit per year. Although providers can make a case for more frequent monitoring for individual patients, that determination places a greater responsibility on providers. The state can modify the periodicity scheduled for foster children and actually provide additional reimbursements to practitioners who conduct developmental and mental health screenings of foster children. This modification might be a more cost effective mechanism for providing the necessary early screening assessment than referring large numbers of children in foster care to mental health centers.

Other states have also modified their Early Periodic Screening Diagnosis and Treatment (EPSDT) program services to better serve a targeted high-risk population, paving the way for modifications that California could consider locally. Some counties (Alameda and Contra Costa) have already developed special CHDP programs for foster children. A federally funded demonstration project in Alameda County provides a CHDP assessment to all children entering foster care in a specific geographic area of that county. This information



is used to generate a "medical passport" that can be used by subsequent providers as well as by the county CHDP office in order to provide centralized case management and health status monitoring.

With the passage of California Assembly Bill 75 in 1989, the scope of EPSDT/CHDP screening and treatment services is likely to expand with funds from Proposition 99. In addition, as of November 1989 amendments to Title XIX give states greater latitude in providing additional services under both Medicaid and EPSDT. Both these recent legislative changes could also permit modifications in the CHDP program to provide expanded services to foster children.

### **3. There is a need for more information about the health of children in foster care.**

The present study left many questions unanswered about the health of children in foster care. To better understand the health care needs of children in foster care in order to inform policymakers, a statewide survey of foster families should be conducted. The description of such a survey is presented in Appendix D.

The current study did not address the important issue of access to health services for children in foster care. To better understand the availability of health services to children in foster care and the barriers foster parents and social workers face in obtaining those services, additional research is necessary. The following are questions that future projects should address.

1. Why do utilization rates between foster children and nonfoster children differ?
  - a. What is the contribution of mental health status to these differences?
  - b. Do children in foster care have a greater burden than other children of medical and mental health problems?
2. Is the utilization of health services by children in foster care appropriate based on their needs?
3. Why do children in foster care have higher utilization rates and expenditures for mental health services than other children covered by Medi-Cal?
  - a. Does this difference represent poorer levels of mental health status at entry to foster care?
  - b. Does the mental health status of children deteriorate in foster care?
  - c. What kind of mental health problems do foster children experience? Are they different from those of other children?
4. What are the barriers to obtaining health services for children in foster care?
5. Why do children in foster care have twice the length of hospital stays than other Medi-Cal children?
6. Why is the CHDP program apparently underutilized by children in foster care?
7. Could CHDP services be better used to meet the special health and developmental needs of foster children?

## **APPENDIX A**

### **FIGURES AND TABLES**

FIGURE 1: Number of Children in Foster Care in California  
1979-88

Source: State of California, Department of Social Services, 1989.  
Reproduced by the Center for the Vulnerable Child.

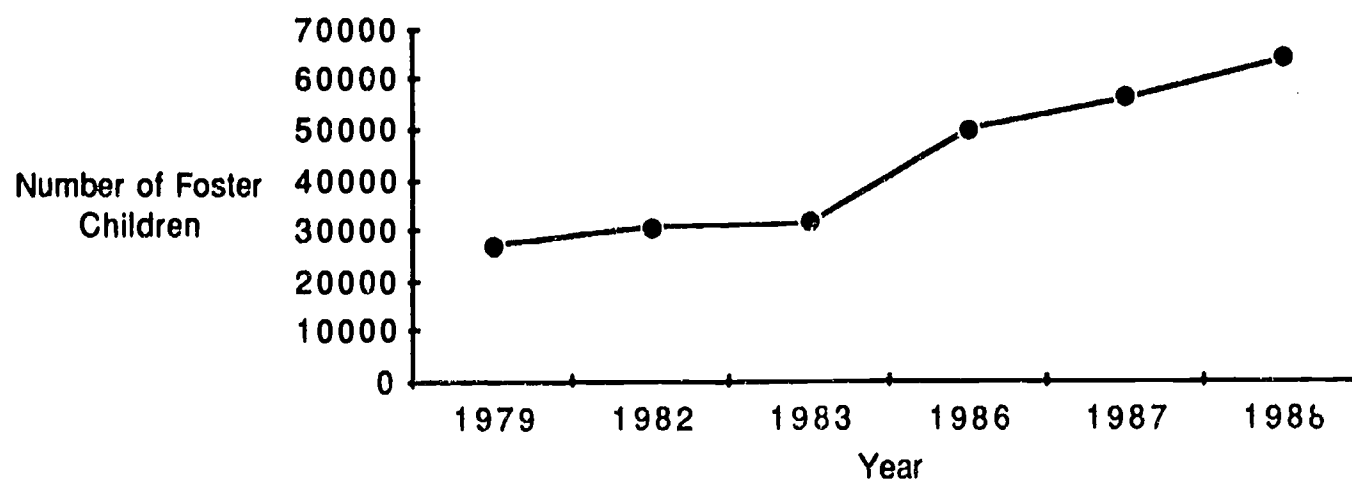
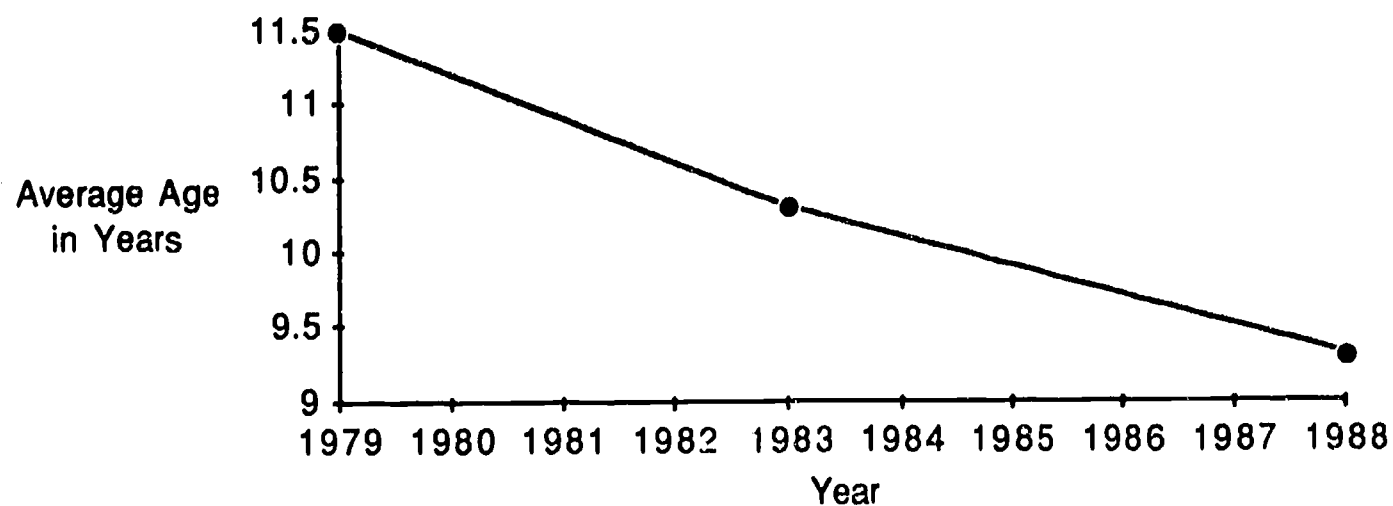


FIGURE 2:  
Average Age of Children in Foster Care in California,  
1979-88

Source: State of California, Department of Social Services, 1989.  
Reproduced by the Center for the Vulnerable Child.



**FIGURE 3: Medi-Cal Users by Amount of Annual Payments, 1988**  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

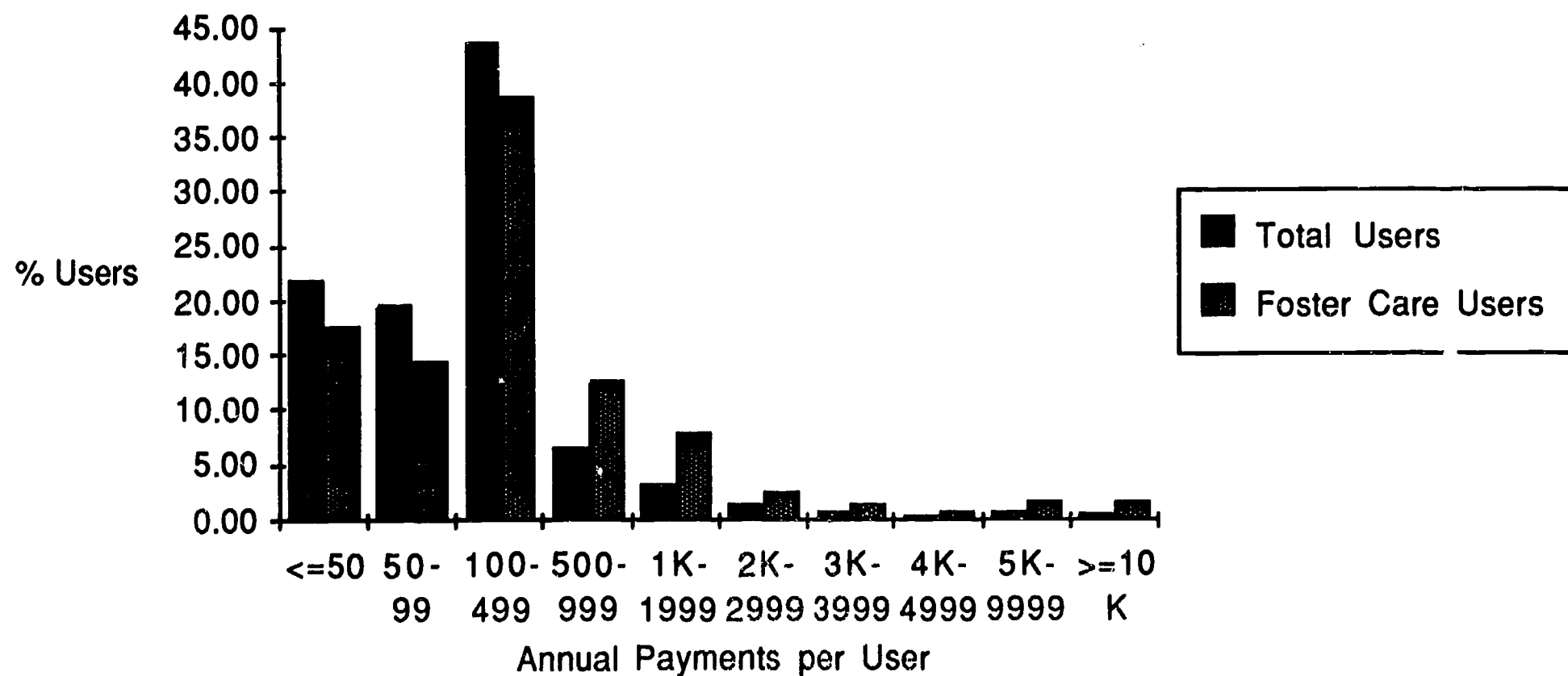
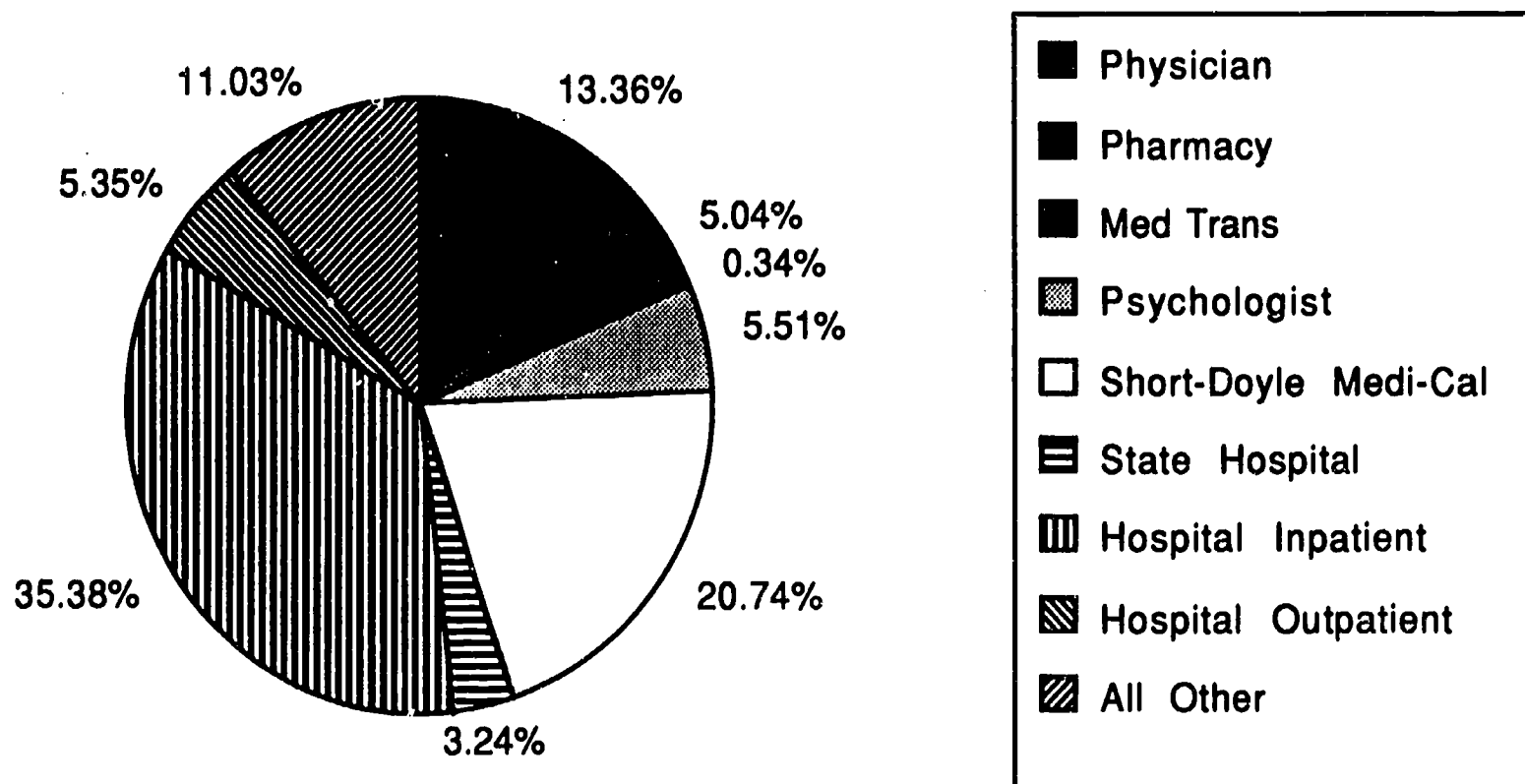
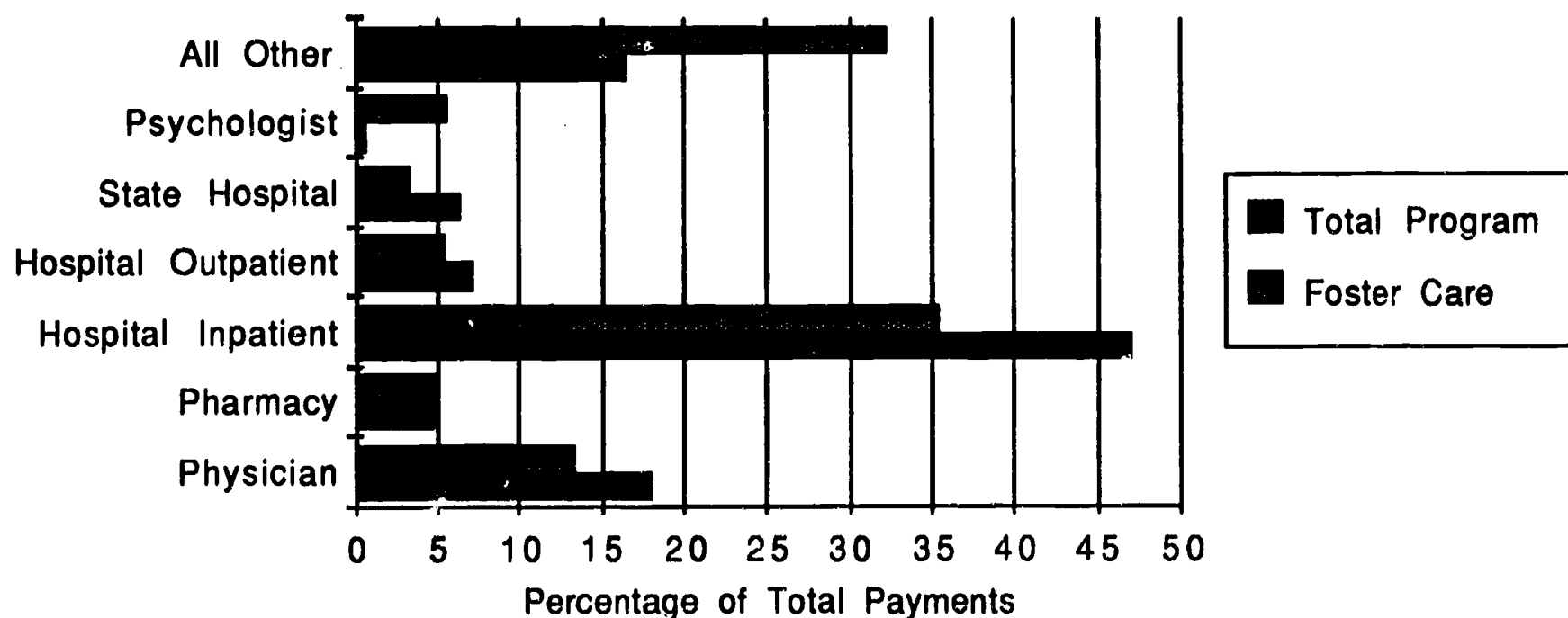


FIGURE 4: Distribution of Medi-Cal Payments for Foster Care, 1988  
Source: California Department of Health Services, Medical Care Statistics, 1989.



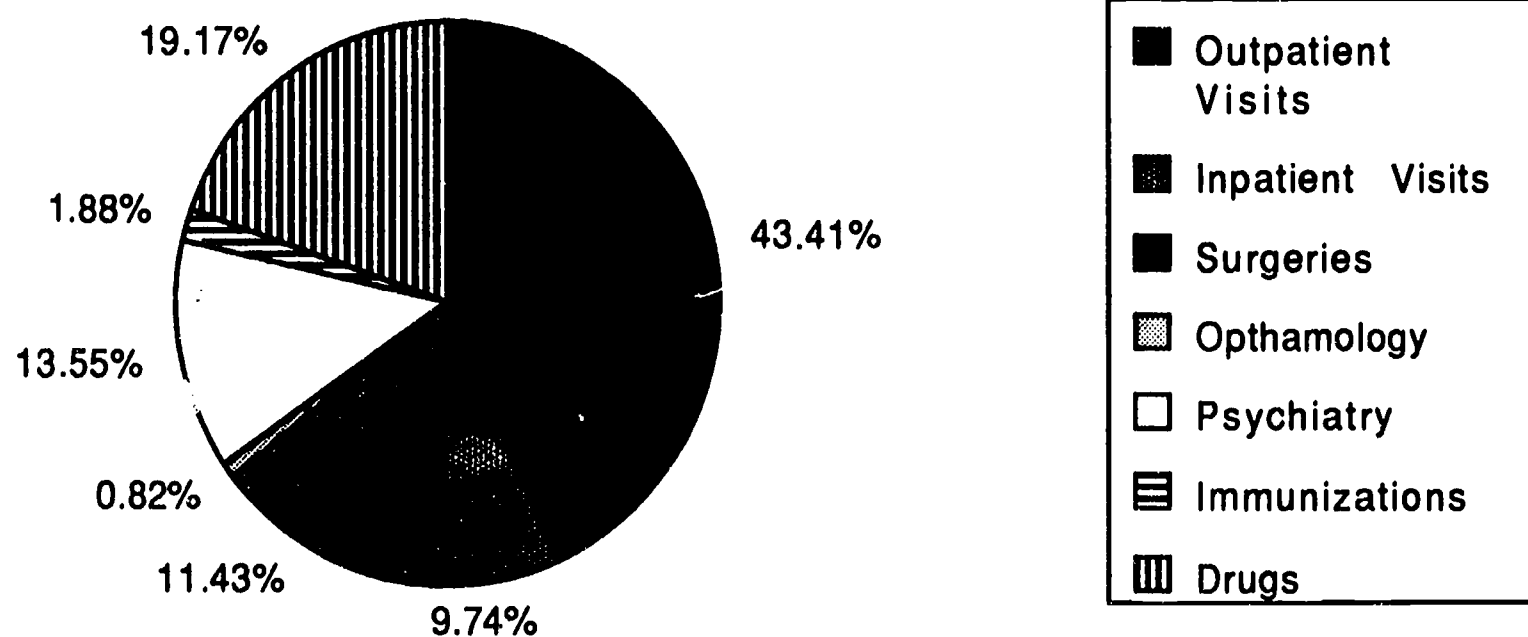
**FIGURE 4A: Distribution of Medi-Cal Payments, 1988**  
**Source: California Department of Health Services, Medical Care Statistics, 1989.**

(Data for total program are estimated from a 5% sample of paid claims.)



**FIGURE 5: Distribution of Medi-Cal Payments for Foster Care for Physician  
Contacts, 1988**

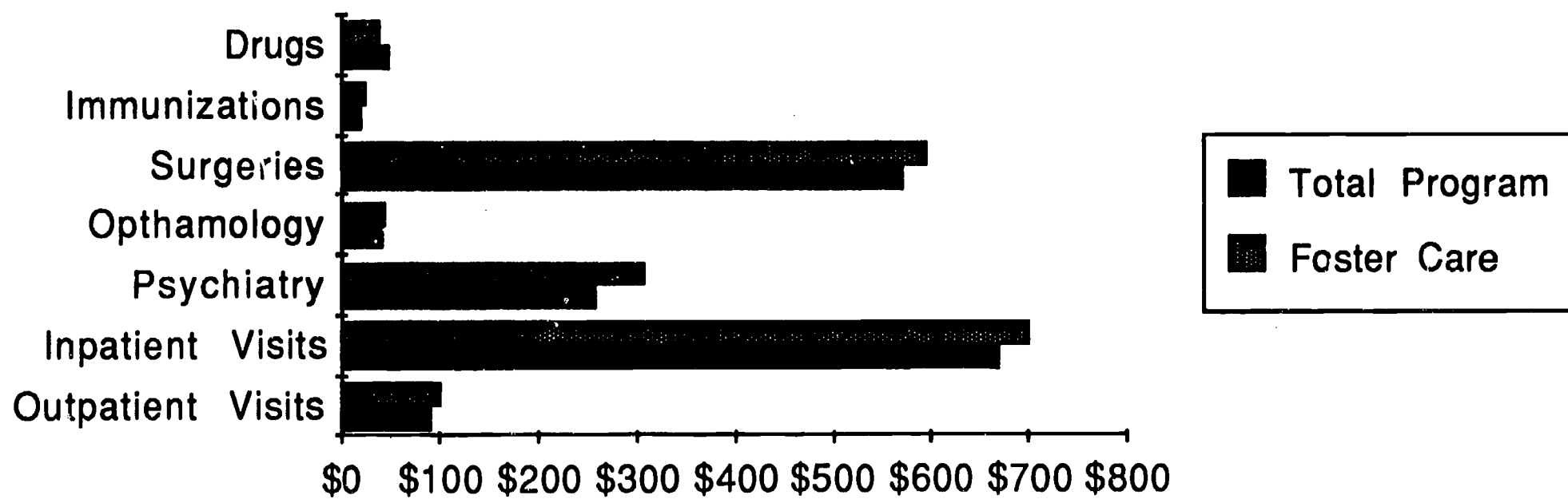
Source: California Department of Health Services, Medical Care Statistics,  
1989.





**FIGURE 6: Adjusted Annual Medi-Cal Payments per User  
for Physician Contacts, 1988**

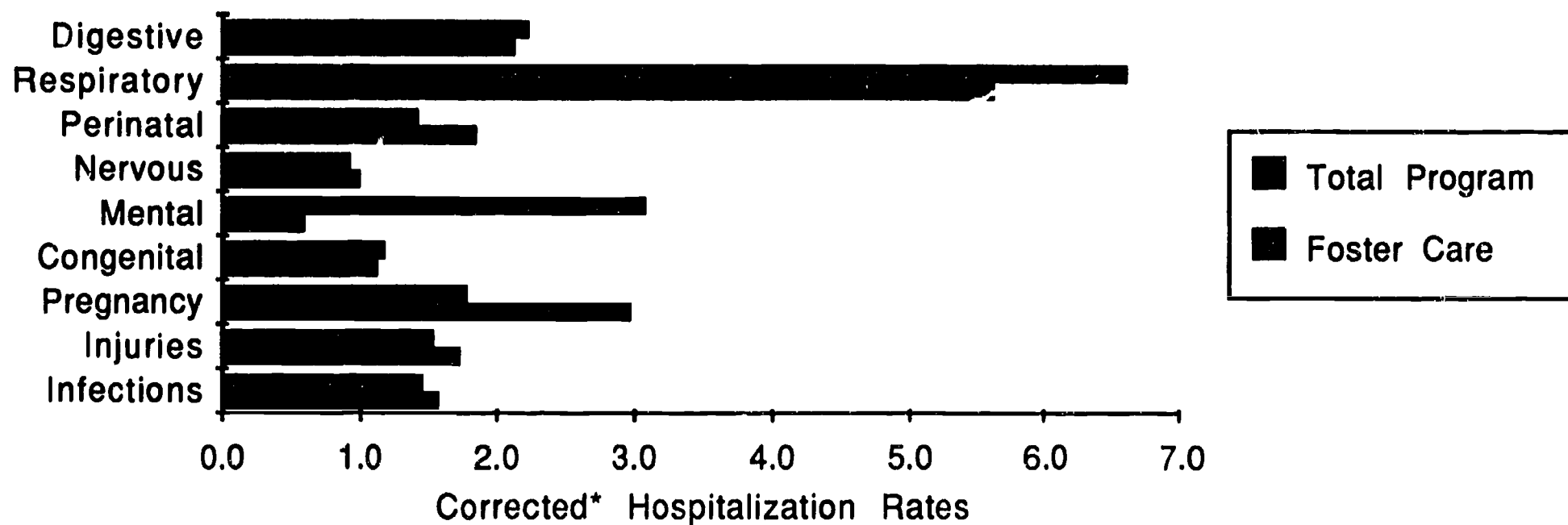
Source: California Department of Health Services, Medical Care  
Statistics, 1989.



Age-Adjusted Annual Payments per User

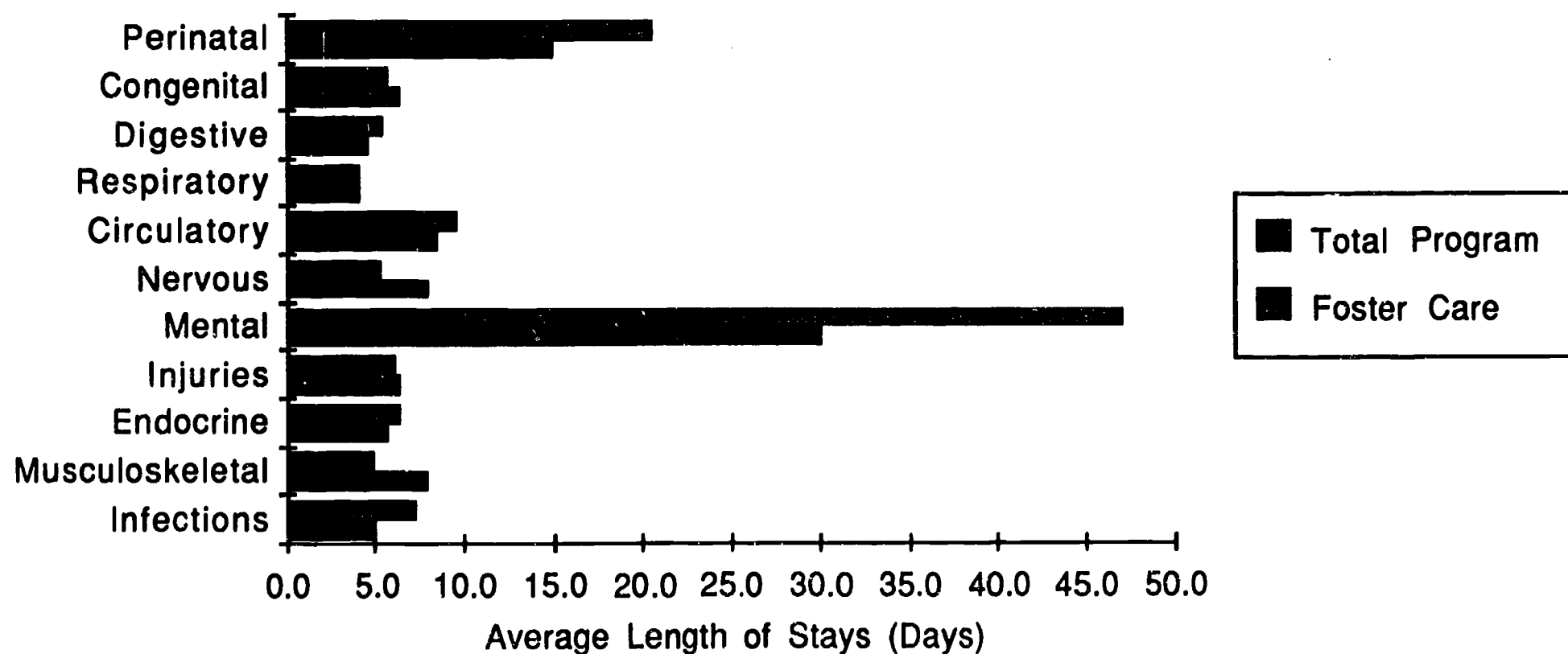
**FIGURE 7 : Corrected Medi-Cal Annual Hospitalization Rates for Specific Diagnoses for Children Under 18 Years of Age, 1988**

Source: California Department of Health Services, Medical Care Statistics, 1989.

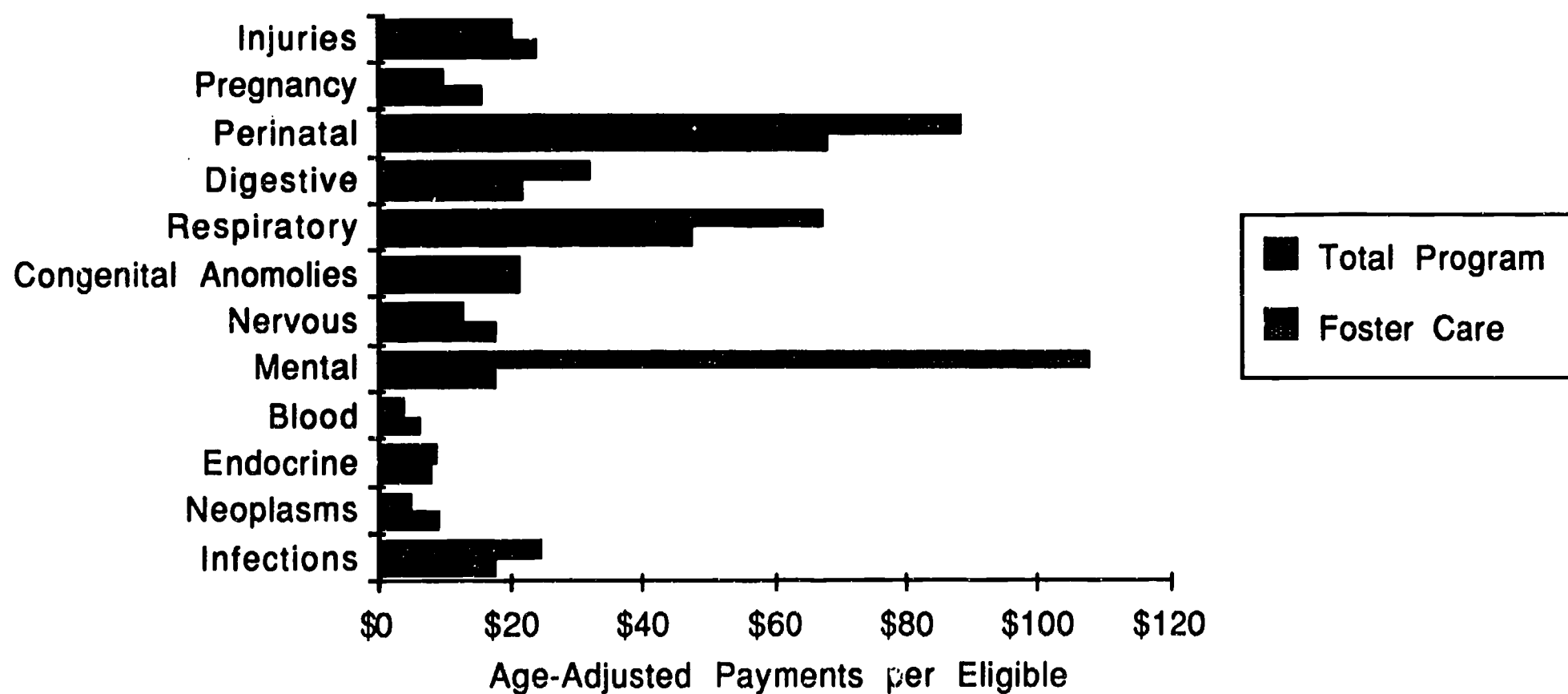


\*Corrected Rate = Annual Discharges/(Average Monthly Eligibles x multiplier of 3) x 1,000.

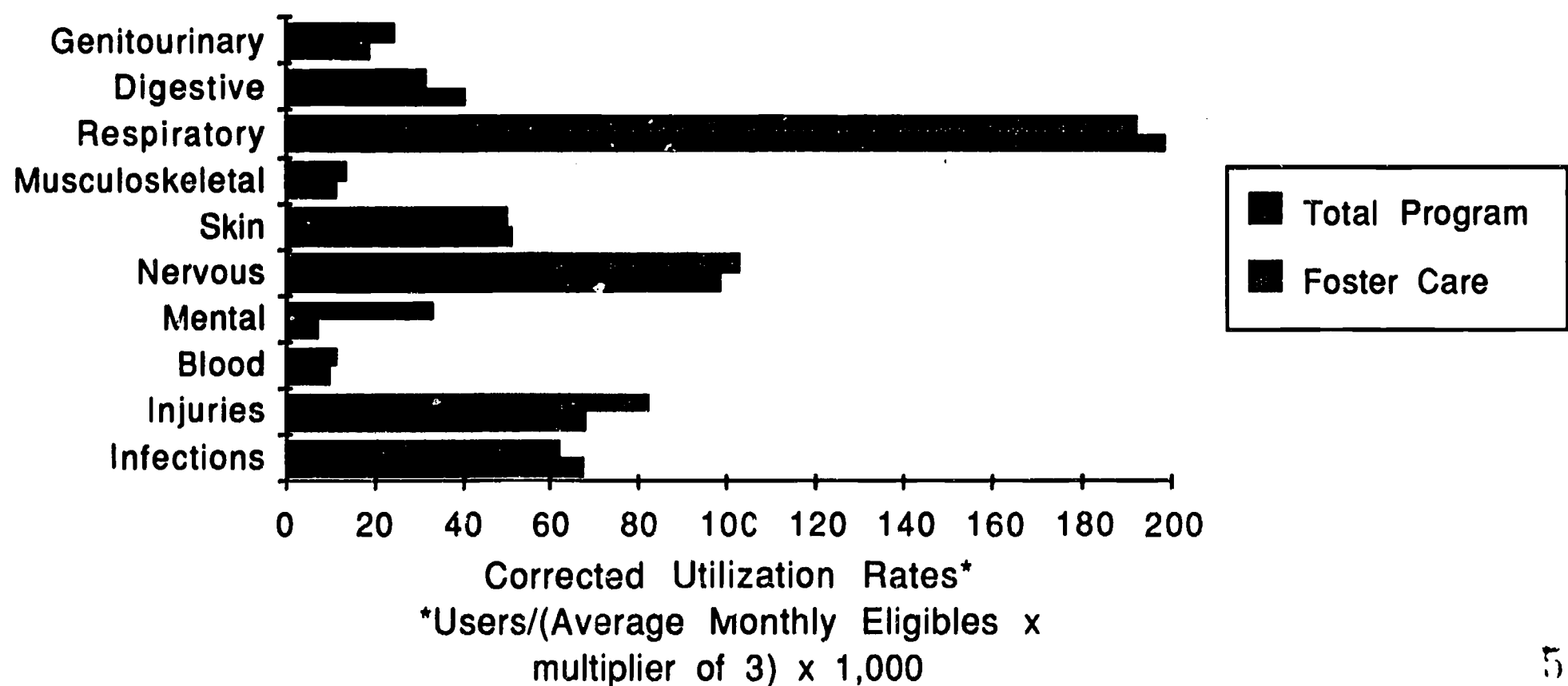
**FIGURE 8: Average Length of Medi-Cal Hospital Stays for Children Under 18  
Years of Age, for Specific Diagnoses, 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.



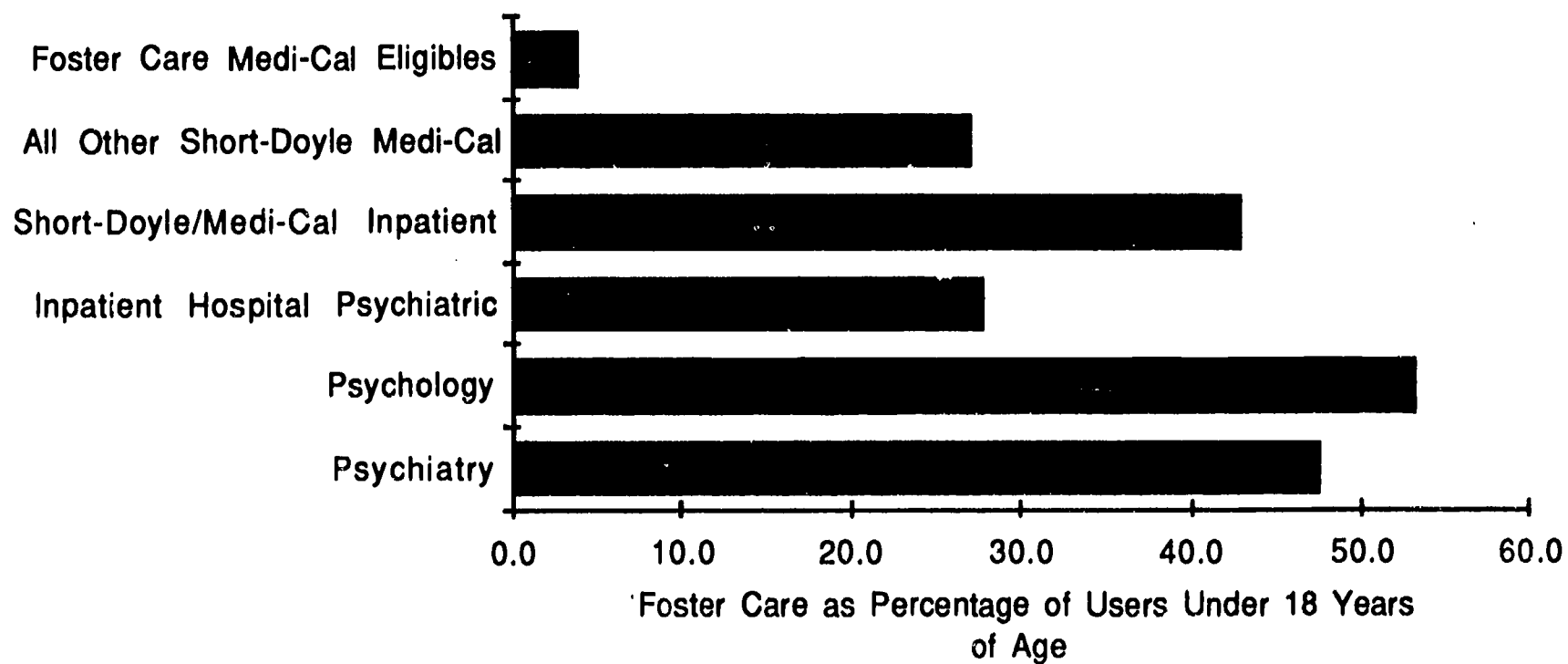
**FIGURE 9: Age-Adjusted Medi-Cal Hospital Payments per Eligible for Children Under 18 Years of Age, for Selected Diagnoses, 1988**  
**Source: California Department of Health Services, Medical Care Statistics, 1989.**



**FIGURE 10: Age-Adjusted Medi-Cal Outpatient Utilization Rates for Children  
Under 18 Years of Age for Specific Diagnoses, 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.



**FIGURE 11: Medi-Cal Mental Health Service Utilization**  
**Foster Care as Percentage of Program Users Under 18 Years of Age, 1988.**  
**Source: California Department of Health Services, Medical Care Statistics, 1989.**



**TABLE 1**  
**Medi-Cal Utilization & Expenditure Statistics**  
**on Children Under 18 Years of Age.**  
**Monthly Averages of 1988. Fee for Service Only**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	Age-Adjusted
<b>TOTAL PROGRAM</b>					
Eligibles	1,291,814	540,968	435,247	315,599	
Users	512,062	263,152	142,194	106,716	
Expenditures	\$87,671,924	\$51,447,074	\$16,231,365	\$19,993,485	
Utilization Rate*	396.39	486.45	326.7	338.14	389.49
Cost/User	\$171.21	\$195.50	\$114.15	\$187.35	\$165.68
Cost/Eligible	\$67.87	\$95.10	\$37.29	\$63.35	\$66.38
<b>FOSTER CARE</b>					
Eligibles	50,634	15,505	15,257	19,872	
Users	24,637	7,730	6,433	10,474	
Expenditures	\$5,854,806	\$1,843,414	\$1,345,152	\$2,666,240	
Utilization Rate*	486.53	498.55	421.64	527.07	480.87
Cost/User	\$237.64	\$238.48	\$209.10	\$254.56	\$233.23
Cost/Eligible	\$115.63	\$118.89	\$88.17	\$134.17	\$112.96

<b>Foster Care as Percentage of Total Program</b>
---

	Age In Years				
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	Age-Adjusted
Eligibles	3.9	2.9	3.5	6.3	4.1
Users	4.8	2.9	4.5	9.8	5.5
Expenditures	6.7	3.6	8.3	13.3	8.0
Utilization Rate*	122.7	102.5	129.1	155.9	127.0
Cost/User	138.8	122.0	183.2	135.9	146.7
Cost/Eligible	170.4	125.0	236.4	211.8	187.8

\*Utilization Rate = Users/1,000 Eligibles per Monthly Average.



**TABLE 2**  
**Medi-Cal Activity Concerning Users by Amounts of Payments**  
**Paid During Calendar Year 1988 for Children Under Age 18**  
**Source: California Department of Health Services, Medical Care Statistics, 1989.**

	Users	% of Total	Cumulative % of Users	Amount Paid	% of Total
<b>TOTAL PROGRAM</b>	1,698,536	100.0		\$1,052,063,079	100.00
Under \$50	372,437	21.927	21.93	\$10,357,161	0.98
\$50-\$99	332,952	19.602	41.53	\$24,340,893	2.31
\$100-\$499	744,011	43.803	85.33	\$167,890,929	15.96
\$500-\$999	112,678	6.634	91.97	\$77,168,616	7.33
\$1000-\$1999	55,554	3.271	95.24	\$78,485,587	7.46
\$2000-\$2999	27,008	1.590	96.83	\$65,999,767	6.27
\$3000-\$3999	15,393	0.906	97.73	\$53,608,132	5.10
\$4000-\$4999	8,115	0.478	98.21	\$36,101,688	3.43
\$5000-\$9999	15,188	0.894	99.11	\$105,021,155	9.98
\$10000-\$19999	8,069	0.475	99.58	\$112,980,423	10.74
\$20000-\$49999	5,217	0.307	99.89	\$156,079,162	14.84
\$50000-\$99999	1,521	0.090	99.98	\$102,107,012	9.71
\$100000-\$199999	329	0.019	100.00	\$43,568,788	4.14
\$200000-\$299999	44	0.003	100.00	\$10,646,279	1.01
\$300000-\$399999	12	0.001	100.00	\$4,076,966	0.39
\$400000-\$599999	8	0.000	100.00	\$3,630,521	0.35
<b>FOSTER CARE TOTAL</b>	69,592	100.000		\$70,257,677	100.00
Under \$50	12,247	17.598	17.60	\$334,650	0.48
\$50-\$99	10,160	14.599	32.20	\$745,489	1.06
\$100-\$499	27,032	38.844	71.04	\$6,628,146	9.43
\$500-\$999	8,787	12.626	83.67	\$6,221,901	8.86
\$1000-\$1999	5,500	7.903	91.57	\$7,660,013	10.90
\$2000-\$2999	1,891	2.717	94.29	\$4,605,873	6.56
\$3000-\$3999	994	.428	95.72	\$3,446,446	4.91
\$4000-\$4999	596	0.856	96.57	\$2,666,121	3.79
\$5000-\$9999	1,178	1.693	98.27	\$8,185,172	11.65
\$10000-\$19999	738	1.060	99.33	\$10,489,887	14.93
\$20000-\$49999	360	0.517	99.84	\$10,233,405	14.57
\$50000-\$99999	88	0.126	99.97	\$5,980,435	8.51
\$100000-\$199999	18	0.026	100.00	\$2,270,943	3.23
\$200000-\$299999	2	0.003	100.00	\$474,809	0.68
\$300000-\$399999	1	0.001	100.00	\$314,387	0.45
\$400000-\$599999	0	0.000	100.00	\$0	0.00

**TABLE 3**  
**Medi-Cal Program Payments by Provider Type during Calendar Year 1988**  
**for Foster Care Children Under 18 Years of Age**  
**Pertaining to Beneficiaries for Whom Medi-Cal Paid Less than \$50,000**  
**and Greater than or Equal to \$50,000**

Source: California Department of Health Services, Medical Care Statistics, 1989.

PROVIDER TYPE	TOTAL		<\$50,000		>=\$50,000	
	Payments	% Total	Payments	% Total	Payments	% Total
	\$70,573,498	100.0	\$61,532,923	100.0	\$9,040,575	100.0
Physician	\$9,428,629	13.4	\$8,906,975	14.5	\$521,654	5.8
Pharmacy	\$3,557,863	5.0	\$3,463,938	5.6	\$93,925	1.0
Dentist	\$1,627,105	2.3	\$1,626,012	2.6	\$1,093	0.0
Optometrist	\$680,327	1.0	\$679,780	1.1	\$547	0.0
Chiropractor	\$2,353	0.0	\$2,353	0.0	\$0	0.0
Podiatrist	\$31,166	0.0	\$31,166	0.1	\$0	0.0
County Hospital Inpatient	\$3,040,531	4.3	\$2,613,535	4.2	\$426,996	4.7
County Hospital Outpatient	\$917,588	1.3	\$914,100	1.5	\$3,488	0.0
Community Hospital Inpatient	\$21,928,981	31.1	\$16,224,337	26.4	\$5,704,644	63.1
Community Hospital Outpatient	\$2,861,535	4.1	\$2,814,404	4.6	\$47,131	0.5
State Hospital	\$2,283,468	3.2	\$932,909	1.5	\$1,350,559	14.9
SNF/ICF	\$443,791	0.6	\$443,791	0.7	\$0	0.0
Home Health Agency	\$50,716	0.1	\$46,939	0.1	\$3,777	0.0
Laboratory Facility	\$900,321	1.3	\$898,652	1.5	\$1,669	0.0
Med Trans	\$242,399	0.3	\$219,159	0.4	\$23,240	0.3
Rehab Facility	\$67,292	0.1	\$65,119	0.1	\$2,173	0.0
Org OP Clinic	\$820,490	1.2	\$819,737	1.3	\$753	0.0
Psychologist	\$3,891,270	5.5	\$3,888,318	6.3	\$2,952	0.0
Short-Doyle Medi-Cal	\$14,635,848	20.7	\$14,144,693	23.0	\$491,155	5.4
Other	\$3,161,825	4.5	\$2,797,006	4.5	\$364,819	4.0

**TABLE 4**  
**Medi-Cal Inpatient Hospital Information--Discharges, Days & Payments**  
**for Services Rendered to Children Under 18 Years of Age**  
**That Were Paid for During Calendar Year 1988**

Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Age In Years</b>				
	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	<b>Age-Adjusted</b>
<b>TOTAL</b>					
Discharges	128,030	90,375	14,112	23,543	
Days	778,480	561,974	85,613	130,893	
Payments	\$538,653,688	\$400,503,545	\$57,407,217	\$80,742,924	
Corrected Utilization Rate*	33.04	55.69	10.81	24.87	31.59
Average Length of Stay (ALOS)(days)	6.08	6.22	6.07	5.56	5.98
Cost/Hospitalization	\$4,207.25	\$4,431.57	\$4,067.97	\$3,429.59	\$4,018.00
 <b>FOSTER CARE</b>					
Discharges	4,350	2,289	479	1,582	
Days	42,082	18,683	6,829	16,570	
Payments	\$24,963,564	\$13,869,451	\$3,301,859	\$7,792,253	
Corrected Utilization Rate*	28.64	49.21	10.47	26.54	29.55
Average Length of Stay (ALOS)(days)	9.67	8.16	14.26	10.47	10.89
Cost/Hospitalization	\$5,738.75	\$6,059.17	\$6,893.23	\$4,925.57	\$6,011.57

\*Corrected Utilization Rate = Discharges/(Average Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 5**  
**Medi-Cal Inpatient Hospital Information--Distribution of Users by Hospital Days**  
**for Services Rendered to Children Under 18 Years of Age**  
**That Were Paid for During Calendar Year 1988**

Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years			
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years
<b>TOTAL USERS</b>	1,699,232	875,366	472,257	351,609
0 days	1,586,484	794,734	460,611	331,139
1-7 days	90,975	64,906	9,249	16,820
8 or more days	21,773	15,726	2,397	3,650
<b>FOSTER CARE USERS</b>	69,816	23,553	18,629	27,634
0 days	66,161	21,724	18,197	26,240
1-7 days	2,416	1,259	267	890
8 or more days	1,239	570	165	504

<b>Distribution of Hospital Days as Percentage of Each Age Group</b>
--

	Age In Years				
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	Age-Adjusted
<b>TOTAL USERS</b>	100.0	100.0	100.0	100.0	
0 days	93.4	90.8	97.5	94.2	94.0
1-7 days	5.4	7.4	2.0	4.8	4.8
8 or more days	1.3	1.8	0.5	1.0	1.1
<b>FOSTER CARE USERS</b>	100.0	100.0	100.0	100.0	
0 days	94.8	92.2	97.7	95.0	94.9
1-7 days	3.5	5.3	1.4	3.2	3.4
8 or more days	1.8	2.4	0.9	1.8	1.7

**TABLE 6**  
**Medi-Cal Program--Distribution of Outpatient Visits**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	Age-Adjusted
<b>TOTAL PROGRAM</b>	1,699,232	875,366	472,257	351,609	587,284
0 visits	408,672	196,226	117,106	95,340	140,239
1 visit	403,385	196,088	119,155	88,142	138,789
2 visits	246,954	120,979	72,862	53,113	85,040
3 visits	164,737	82,779	47,916	34,042	56,866
4 visits	116,088	60,812	32,451	22,825	40,214
5 or more visits	359,396	218,482	82,767	58,147	126,138
<b>FOSTER CARE</b>	69,816	23,553	18,629	27,634	23,076
0 visits	17,025	4,033	5,292	7,700	5,522
1 visit	16,664	5,343	4,891	6,430	5,506
2 visits	10,229	3,477	2,840	3,912	3,388
3 visits	6,791	2,425	1,792	2,574	2,255
4 visits	4,652	1,777	1,114	1,761	1,549
5 or more visits	14,455	6,498	2,700	5,257	4,856

<b>Medi-Cal Visits as Percentage of Total Visits for Each Age Category</b>
--

<b>TOTAL PROGRAM</b>	100.0	100.0	100.0	100.0	100.0
0 visits	24.1	22.4	24.8	27.1	23.9
1 visit	23.7	22.4	25.2	25.1	23.6
2 visits	14.5	13.8	15.4	15.1	14.5
3 visits	9.7	9.5	10.1	9.7	9.7
4 visits	6.8	6.9	6.9	6.5	6.8
5 or more visits	21.2	25.0	17.5	16.5	21.5
<b>FOSTER CARE</b>	100.0	100.0	100.0	100.0	100.0
0 visits	24.4	17.1	28.4	27.9	23.9
1 visit	23.9	22.7	26.3	23.3	23.9
2 visits	14.7	14.8	15.2	14.2	14.7
3 visits	9.7	10.3	9.6	9.3	9.8
4 visits	6.7	7.5	6.0	6.4	6.7
5 or more visits	20.7	27.6	14.5	19.0	21.0

**Table 7**  
**Selected Medi-Cal Information Involving Physician Contacts**  
**by Children Under 18 Years of Age Paid for During 1988**  
**Unduplicated Users of Services**

Source: California Department of Health Services, Medical Care Statistics, 1989.

SERVICE TYPES	Age In Years			
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years
Outpatient Visits	1,291,412	681,782	354,650	254,980
Inpatient Visits--No Critical Care	147,490	129,824	8,280	9,386
Inpatient--Critical Care	19,904	17,494	1,184	1,226
MD Opthamological Exams	35,904	10,225	14,612	11,067
Inpatient Surgeries	36,266	18,942	5,561	11,763
Outpatient Surgeries	137,736	60,502	38,871	38,363
Psychiatry	11,536	1,480	3,404	6,652
Immunizations & Injections	242,419	149,042	52,264	41,113
Drugs	1,092,105	571,987	309,012	211,106
<b>FOSTER CARE</b>				
Outpatient Visits	52,818	19,674	13,301	19,843
Inpatient Visits--No Critical Care	3,102	1,797	334	971
Inpatient--Critical Care	577	450	39	88
MD Opthamological Exams	2,446	677	780	989
Inpatient Surgeries	1,427	590	174	663
Outpatient Surgeries	6,259	1,938	1,538	2,783
Psychiatry	5,484	275	1,336	3,873
Immunizations & Injections	10,036	4,791	1,980	3,265
Drugs	41,550	16,367	10,490	14,693

Foster Care as Percentage of Total Program Users					Age-Adjusted %
Outpatient Visits	4.1	2.9	3.8	7.8	4.6
Inpatient Visits--No Critical Care	2.1	1.4	4.0	10.3	4.9
Inpatient--Critical Care	2.9	2.6	3.3	7.2	4.2
MD Opthamological Exams	6.8	6.6	5.3	8.9	6.9
Inpatient Surgeries	3.9	3.1	3.1	5.6	3.9
Outpatient Surgeries	4.5	3.2	4.0	7.3	4.6
Psychiatry	47.5	18.6	39.2	58.2	37.1
Immunizations & Injections	4.1	3.2	3.8	7.9	4.8
Drugs	3.8	2.9	3.4	7.0	4.2

**TABLE 8**

Selected Medi-Cal Information Involving Physician Contacts  
by Children Under 18 Years of Age Paid for During 1988

**Units of Service**

Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years			
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years
<b>TOTAL</b>	12,798,907	7,630,703	2,991,805	2,160,399
Outpatient Visits	4,934,113	2,883,882	1,197,858	852,373
Inpatient Visits--No Critical Care	584,387	465,155	54,719	64,513
Inpatient--Critical Care	232,744	219,846	6,578	6,320
MD Opthamological Exams	44,259	14,049	1,271	12,939
Inpatient Surgeries	49,719	28,760	6,570	14,389
Outpatient Surgeries	231,383	98,641	65,179	67,563
Psychiatry	99,728	6,910	30,366	62,452
Immunizations & Injections	582,970	376,288	118,192	88,490
Drugs	6,039,604	3,537,172	1,511,072	991,360
<b>FOSTER CARE</b>	540,480	199,476	113,336	209,668
Outpatient Visits	201,261	68,090	40,847	74,324
Inpatient Visits--No Critical Care	21,749	13,362	1,923	6,464
Inpatient--Critical Care	7,201	6,810	198	193
MD Opthamological Exams	3,110	1,026	946	1,138
Inpatient Surgeries	2,008	982	207	819
Outpatient Surgeries	10,877	3,309	2,557	5,011
Psychiatry	52,605	2,158	13,224	37,223
Immunizations & Injections	23,414	12,267	4,455	6,692
Drugs	218,255	91,472	48,979	77,804

**Foster Care as Percentage of Total Program Units of Service**

Outpatient Visits	4.1	2.4	3.4	8.7	4.6
Inpatient Visits--No Critical Care	3.7	2.9	3.5	10.0	5.2
Inpatient--Critical Care	3.1	3.1	3.0	3.1	3.1
MD Opthamological Exams	7.0	7.3	74.4	8.8	30.4
Inpatient Surgeries	4.0	3.4	3.2	5.7	4.0
Outpatient Surgeries	4.7	3.4	3.9	7.4	4.7
Psychiatry	52.7	31.2	43.5	59.6	43.6
Immunizations & Injections	4.0	3.3	3.8	7.6	4.7
Drugs	3.6	2.6	3.2	7.8	4.3



**TABLE 9**  
**Selected Medi-Cal Information Involving Physician Contacts**  
**by Children Under 18 Years of Age Paid for During 1988**  
**Medi-Cal Payments**

Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years			
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years
<b>TOTAL</b>	\$249,763,999	\$146,748,403	\$52,848,089	\$50,167,507
Outpatient Visits	\$120,308,663	\$69,171,183	\$28,378,257	\$22,759,223
Inpatient Visits--No Critical Care	\$18,810,575	\$14,736,686	\$1,889,398	\$2,184,490
Inpatient--Critical Care	\$17,416,936	\$16,955,456	\$237,361	\$224,119
MD Opthamological Exams	\$1,454,270	\$483,159	\$542,596	\$428,516
Inpatient Surgeries	\$16,821,660	\$7,097,846	\$2,596,026	\$7,127,787
Outpatient Surgeries	\$13,699,492	\$5,984,587	\$3,519,902	\$4,195,003
Psychiatry	\$3,419,067	\$221,753	\$1,120,742	\$2,076,571
Immunizations & Injections	\$5,063,299	\$3,531,749	\$884,737	\$646,813
Drugs	\$52,770,037	\$28,565,984	\$13,697,070	\$10,524,984
<b>FOSTER CARE</b>	\$12,593,137	\$4,915,604	\$2,480,331	\$5,197,202
Outpatient Visits	\$5,466,074	\$2,277,482	\$1,101,546	\$2,087,046
Inpatient Visits--No Critical Care	\$743,181	\$448,892	\$68,345	\$225,943
Inpatient--Critical Care	\$482,960	\$469,111	\$7,004	\$6,844
MD Opthamological Exams	\$103,856	\$38,418	\$29,332	\$36,106
Inpatient Surgeries	\$781,507	\$282,890	79782	\$418,835
Outpatient Surgeries	\$657,478	\$266,636	\$139,193	\$251,650
Psychiatry	\$1,706,499	\$72,429	\$495,619	\$1,138,451
Immunizations & Injections	\$237,003	\$125,904	\$43,522	\$67,578
Drugs	\$2,414,578	\$933,841	\$515,988	\$964,748

Foster Care as Percentage of Total Program Payments					Age-Adjusted %	
Outpatient Visits	4.5	3.3	3.9	9.2	5.2	
Inpatient Visits--No Critical Care	4.0	3.0	3.6	10.3	5.4	
Inpatient--Critical Care	2.8	2.8	3.0	3.1	2.9	
MD Opthamological Exams	7.1	8.0	5.4	8.4	7.2	
Inpatient Surgeries	4.6	4.0	3.1	5.9	4.2	
Outpatient Surgeries	4.8	4.5	4.0	6.0	4.7	
Psychiatry	49.9	32.7	44.2	54.8	43.0	
Immunizations & Injections	4.7	3.6	4.9	10.4	6.0	
Drugs	4.6	3.3	3.8	9.2	5.1	

**TABLE 9.1**  
**Selected Medi-Cal Information Involving Physician Contacts**  
**by Children Under 18 Years of Age Paid for During 1988**  
**Distribution of Payments (Percentages)**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Total Program</b>	<b>Foster Care</b>
<b>TOTAL</b>	100.0	100.0
Outpatient Visits	48.2	43.4
Inpatient Visits--No Critical Care	7.5	5.9
Inpatient--Critical Care	7.0	3.8
MD Opthamological Exams	0.6	0.8
Inpatient Surgeries	6.7	6.2
Outpatient Surgeries	5.5	5.2
Psychiatry	1.4	13.6
Immunizations & Injections	2.0	1.9
Drugs	21.1	19.2

**TABLE 10**  
**Selected Medi-Cal Information Involving Physician Contacts**  
**by Children Under 18 Years of Age Paid for During 1988**  
**Adjusted Utilization Rates\* for Selected Services**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Age In Years</b>				
	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	<b>Age-Adjusted</b>
<b>TOTAL</b>					
Outpatient Visits	333.23	420.10	271.61	269.31	326.21
Inpatient Visits--No Critical Care	38.06	79.99	6.34	9.91	34.79
Inpatient--Critical Care	5.14	10.78	0.91	1.29	4.69
MD Opthamological Exams	9.26	6.30	11.19	11.69	9.51
Inpatient Surgeries	9.36	11.67	4.26	12.42	9.39
Outpatient Surgeries	35.54	37.28	29.77	40.52	35.69
Psychiatry	2.98	0.91	2.61	7.03	3.26
Immunizations & Injections	62.55	91.84	40.03	43.42	60.30
Drugs	281.80	352.45	236.66	222.97	275.78
<b>FOSTER CARE</b>					
Outpatient Visits	347.71	422.96	290.60	332.85	352.13
Inpatient Visits--No Critical Care	20.42	38.63	7.30	16.29	21.57
Inpatient--Critical Care	3.80	9.67	0.85	1.48	4.32
MD Opthamological Exams	16.10	14.55	17.04	16.59	15.98
Inpatient Surgeries	9.39	12.68	3.80	11.12	9.23
Outpatient Surgeries	41.20	41.66	33.60	46.68	40.40
Psychiatry	36.10	5.91	29.19	64.97	30.91
Immunizations & Injections	66.07	103.00	43.26	54.77	68.84
Drugs	273.53	351.86	229.18	246.46	279.87

\*Corrected Utilization Rate = Users/(Average Monthly Eligibles x multiplier of 3) x1,000.

**TABLE 11**  
**Selected Medi-Cal Information Involving Physician Contacts**  
**by Children Under 18 Years of Age Paid for During 1988**  
**Age-Adjusted Payments per User**

Source: California Department of Health Services, Medical Care Statistics, 1989.

<b>TOTAL</b>	<b>Total Program</b>	<b>Foster Care</b>
Outpatient Visits	\$91	\$102
Inpatient Visits--No Critical Care	\$187	\$230
Inpatient--Critical Care	\$481	\$471
MD Opthamological Exams	\$41	\$44
Inpatient Surgeries	\$473	\$392
Outpatient Surgeries	\$99	\$203
Psychiatry	\$258	\$309
Immunizations & Injections	\$19	\$23
Drugs	\$48	\$57

**TABLE 11.1**  
**Selected Medi-Cal Information Involving Physician Contacts**  
**by Children Under 18 Years of Age Paid for During 1988**  
**Payments per User**

Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	Age-Adjusted
<b>TOTAL</b>					
Outpatient Visits	\$93.16	\$101.46	\$80.02	\$89.26	\$90.68
Inpatient Visits--No Critical Care	\$127.54	\$113.51	\$228.19	\$232.74	\$186.82
Inpatient--Critical Care	\$875.05	\$969.22	\$200.47	\$182.81	\$481.50
MD Opthamological Exams	\$40.50	\$47.25	\$37.13	\$38.72	\$41.36
Inpatient Surgeries	\$463.84	\$374.71	\$466.83	\$605.95	\$472.93
Outpatient Surgeries	\$99.46	\$98.92	\$90.55	\$109.35	\$99.12
Psychiatry	\$296.38	\$149.83	\$329.24	\$312.17	\$257.51
Immunizations & Injections	\$20.89	\$23.70	\$16.93	\$15.73	\$19.10
Drugs	\$48.32	\$49.94	\$44.33	\$49.86	\$48.02
<b>FOSTER CARE</b>					
Outpatient Visits	\$103.49	\$115.76	\$82.82	\$105.18	\$101.57
Inpatient Visits--No Critical Care	\$14.68	\$249.80	\$204.63	\$232.69	\$229.59
Inpatient--Critical Care	\$9.54	\$1,042.47	\$179.59	\$77.77	\$471.23
MD Opthamological Exams	\$2.05	\$56.75	\$37.61	\$36.51	\$44.41
Inpatient Surgeries	\$15.43	\$479.47	\$458.52	\$631.73	\$392.41
Outpatient Surgeries	\$12.98	\$137.58	\$90.50	\$90.42	\$202.66
Psychiatry	\$33.70	\$263.38	\$370.97	\$293.95	\$308.56
Immunizations & Injections	\$4.68	\$26.28	\$21.98	\$20.70	\$23.21
Drugs	\$47.69	\$57.06	\$49.19	\$65.66	\$56.90

**TABLE 12**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Corrected\* Age-Adjusted Hospital Utilization Rates Per Year**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Total Program</b>	<b>Foster Care</b>
Infections & Parasitic	1.58	1.45
Neoplasms	0.44	0.26
Endocrine, Nutritional	0.65	0.69
Blood	0.55	0.49
Mental Disorders	0.59	3.08
Nervous System	0.99	0.91
Circulatory System	0.21	0.23
Respiratory System	5.61	6.60
Digestive System	2.13	2.23
Genitourinary System	0.67	0.64
Pregnancy, Childbirth	2.97	1.79
Skin & Subcutaneous	0.49	0.43
Musculoskeletal	0.45	0.52
Congenital Anomalies	1.12	1.18
Perinatal Conditions	1.86	1.41
Ill-Defined Conditions	1.40	1.91
Injuries & Poisonings	1.72	1.54
All Other	8.16	4.19
<b>TRACER CONDITIONS</b>		
Malnutrition	8.20	0.05
Iron Deficiency Anemia	0.01	0.01
Asthma	1.65	1.85
Pneumonia	2.15	2.32
Acute Gastroenteritis	0.75	0.65

\*Corrected Utilization Rate = Discharges/(Avg. Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 12.1**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Hospital Discharges for Total Program**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Age In Years</b>				<b>Corrected</b>
	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	<b>Utilization Rate*</b> (Age-Adjusted)
Infections & Parasitic	6,663	5,526	684	453	1.58
Neoplasms	1,702	817	470	415	0.44
Endocrine, Nutritional	2,573	1,556	443	574	0.65
Blood	2,143	894	744	505	0.55
Mental Disorders	2,002	112	319	1,571	0.59
Nervous System	4,054	2,833	692	529	0.99
Circulatory System	850	566	130	154	0.21
Respiratory System	23,523	18,913	2,916	1,694	5.61
Digestive System	8,485	4,922	1,822	1,741	2.13
Genitnuriary System	2,586	1,273	468	845	0.67
Pregnancy, Childbirth	9,827	545	10	9,272	2.97
Skin & Subcutaneous	1,953	1,169	447	337	0.49
Musculoskeletal	1,702	572	525	605	0.45
Congenital Anomolies	4,726	3,861	556	309	1.12
Perinatal Conditions	8,085	8,053	5	27	1.86
Ill-Defined Conditions	5,759	4,342	705	712	1.40
Injuries & Poisonings	6,519	2,281	2,069	2,169	1.72
All Other	34,878	32,140	1,107	1,631	8.16
<b>TRACER CONDITIONS</b>					
Malnutrition	35,039	32,253	1,148	1,638	8.20
Iron Deficiency Anemia	51	47	1	3	0.01
Asthma	6,671	4,188	1,525	958	1.65
Pneumonia	9,144	8,047	750	347	2.15
Acute Gastroenteritis	3,186	2,663	342	181	0.75

\*Corrected Utilization Rate = Discharges/(Average Monthly Eligibles x multiplier of 3) x 1,000.



**TABLE 12.2**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Hospital Discharges for Foster Care**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				Utilization Rate* (Age-Adjusted)
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	
<b>FOSTER CARE</b>					
Infections & Parasitic	195	142	23	30	1.45
Neoplasms	37	8	22	7	0.26
Endocrine, Nutritional	103	53	10	40	0.69
Blood	76	29	13	34	0.49
Mental Disorders	582	8	81	486	3.08
Nervous System	126	86	12	28	0.91
Circulatory System	33	18	5	10	0.23
Respiratory System	870	697	71	102	8.60
Digestive System	311	198	38	75	2.23
Genitourinary System	105	35	7	63	0.64
Pregnancy, Childbirth	365	4	0	361	1.79
Skin & Subcutaneous	60	30	17	13	0.43
Musculoskeletal	83	18	22	43	0.52
Congenital Anomalies	156	115	23	18	1.18
Perinatal Conditions	177	176	0	1	1.41
Ill-Defined Conditions	256	195	20	41	1.91
Injuries & Poisonings	242	70	58	114	1.54
All Other	573	407	50	116	4.19
<b>TRACER CONDITIONS</b>					
Malnutrition	7	4	2	1	0.05
Iron Deficiency Anemia	1	1	0	0	0.01
Asthma	259	165	30	64	1.85
Pneumonia	297	265	19	13	2.32
Acute Gastroenteritis	84	72	5	7	0.65

\*Corrected Utilization Rate = Discharges / (Average Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 13**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Age-Adjusted Average Length of Stays (ALOS)**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Total Program</b>	<b>Foster Care</b>
Infections & Parasitic	5.0	7.2
Neoplasms	8.6	8.3
Endocrine, Nutritional	5.7	6.3
Blood	4.7	3.5
Mental Disorders	30.0	47.0
Nervous System	7.9	5.3
Circulatory System	8.5	9.5
Respiratory System	4.0	4.1
Digestive System	4.6	5.4
Genitourinary System	5.0	5.9
Pregnancy, Childbirth	3.0	0.8
Skin & Subcutaneous	5.3	6.1
Musculoskeletal	7.9	4.9
Congenital Anomalies	6.3	5.7
Perinatal Conditions	15.0	20.5
Ill-Defined Conditions	4.2	3.7
Injuries & Poisonings	6.3	6.0
All Other	4.8	6.9
<b>TRACER CONDITIONS</b>		
Malnutrition	0.1	3.1
Iron Deficiency Anemia	5.6	1.1
Asthma	3.0	3.2
Pneumonia	5.4	5.5
Acute Gastroenteritis	3.0	3.7

**TABLE 13.1**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Hospital Days for Total Program**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				Average Length
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	of Stay (ALOS) (Age-Adjusted)
Infections & Parasitic	34,408	28,984	2,904	2,520	5.00
Neoplasms	14,685	6,980	3,851	3,854	8.64
Endocrine, Nutritional	14,583	8,994	2,779	2,810	5.69
Blood	10,126	4,816	3,077	2,233	4.68
Mental Disorders	55,207	1,878	15,978	37,351	37.05
Nervous System	30,710	20,841	4,284	5,585	7.89
Circulatory System	7,134	4,612	948	1,574	8.46
Respiratory System	97,477	79,553	10,625	7,299	4.05
Digestive System	40,167	24,182	8,238	7,747	4.65
Genitourinary System	12,993	7,134	2,395	3,464	5.00
Pregnancy, Childbirth	25,378	2,276	22	23,080	3.02
Skin & Subcutaneous	10,167	6,026	2,142	1,999	5.26
Musculoskeletal	13,454	4,302	4,434	4,718	7.91
Congenital Anomalies	38,676	34,573	2,661	1,442	6.30
Perinatal Conditions	133,282	133,005	103	174	14.97
Ill-Defined Conditions	26,787	21,532	2,501	2,754	4.17
Injuries & Poisonings	41,408	13,202	13,366	14,840	6.32
All Other	171,838	159,084	5,305	7,449	4.79
TRACER CONDITIONS					
Malnutrition	1,119	807	265	47	0.10
Iron Deficiency Anemia	165	146	11	8	5.64
Asthma	20,798	13,541	4,363	2,894	3.05
Pneumonia	43,441	37,257	3,831	2,353	5.42
Acute Gastroenteritis	10,928	9,566	873	489	2.98

**TABLE 13.2**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Hospital Days for Foster Care**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	Total Under 18	Under 6 Years	Age In Years 6-11 Years	12-17 Years	Average Length of Stay (ALOS) (Age-Adjusted)
FOSTER CARE					
Infections & Parasitic	1,445	1,101	200	144	7.21
Neoplasms	286	78	153	55	8.26
Endocrine, Nutritional	537	239	94	204	6.33
Blood	241	86	59	96	3.46
Mental Disorders	17,127	448	4,991	11,688	46.97
Nervous System	729	497	40	192	5.27
Circulatory System	341	171	27	143	9.51
Respiratory System	4,060	3,435	254	371	4.10
Digestive System	1,875	1,327	154	394	5.39
Genitourinary System	567	256	39	272	5.86
Pregnancy, Childbirth	1,055	27	0	1,028	0.83
Skin & Subcutaneous	346	147	84	115	6.06
Musculoskeletal	423	79	108	236	4.88
Congenital Anomolies	1,068	887	69	112	5.69
Perinatal Conditions	4,657	4,620	0	37	20.51
Ill-Defined Conditions	1,311	1,174	53	84	3.73
Injuries & Poisonings	1,472	560	229	683	6.05
All Other	4,542	3,551	275	716	6.90
TRACER CONDITIONS					
Malnutrition	42	33	8	1	3.07
Iron Deficiency Anemia	3	3	0	0	1.12
Asthma	866	600	89	177	3.16
Pneumonia	1,617	1,444	81	92	5.52
Acute Gastroenteritis	350	310	17	23	3.70

**TABLE 14**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Age-Adjusted Hospital Inpatient Payments per Eligible**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Total Program</b>	<b>Foster Care</b>
Infections & Parasitic	\$18	\$24
Neoplasms	\$9	\$5
Endocrine, Nutritional	\$8	\$9
Blood	\$6	\$4
Mental Disorders	\$18	\$108
Nervous System	\$17	\$13
Circulatory System	\$4	\$5
Respiratory System	\$48	\$67
Digestive System	\$22	\$32
Genitourinary System	\$7	\$8
Pregnancy, Childbirth	\$15	\$10
Skin & Subcutaneous	\$5	\$5
Musculoskeletal	\$8	\$6
Congenital Anomalies	\$21	\$21
Perinatal Conditions	\$68	\$88
Ill-Defined Conditions	\$14	\$23
Injuries & Poisonings	\$24	\$20
All Other	\$83	\$72
<b>TRACER CONDITIONS</b>		
Malnutrition	\$1	\$1
Iron Deficiency Anemia	\$0	\$0
Asthma	\$11	\$14
Pneumonia	\$20	\$27
Acute Gastroenteritis	\$5	\$5

**TABLE 14.1**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Medi-Cal Payments for Total Program**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Age In Years</b>				<b>\$/Eligible (Age-Adjusted)</b>
	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	
Infections & Parasitic	\$24,621,322	\$20,864,658	\$1,952,979	\$1,803,685	\$17.53
Neoplasms	\$11,817,322	\$5,566,532	\$3,098,521	\$3,152,269	\$9.13
Endocrine, Nutritional	\$10,755,795	\$6,484,700	\$2,223,810	\$2,047,285	\$8.07
Blood	\$8,272,835	\$3,869,541	\$2,551,675	\$1,851,619	\$6.34
Mental Disorders	\$20,302,955	\$565,401	\$6,123,049	\$13,614,505	\$17.66
Nervous System	\$23,523,737	\$15,810,147	\$3,282,711	\$4,430,879	\$17.50
Circulatory System	\$5,209,454	\$3,414,468	\$698,646	\$1,096,340	\$3.90
Respiratory System	\$66,330,339	\$53,551,104	\$7,604,812	\$5,174,423	\$47.50
Digestive System	\$28,817,382	\$17,655,150	\$5,657,616	\$5,504,616	\$21.60
Genitourinary System	\$9,417,024	\$5,351,451	\$1,671,188	\$2,394,385	\$7.18
Pregnancy, Childbirth	\$17,155,438	\$1,503,529	\$10,463	\$15,641,446	\$15.43
Skin & Subcutaneous	\$7,019,574	\$4,182,545	\$1,487,472	\$1,349,557	\$5.27
Musculoskeletal	\$10,259,847	\$3,207,633	\$3,396,236	\$3,655,978	\$8.20
Congenital Anomalies	\$29,878,851	\$26,585,256	\$2,184,141	\$1,109,454	\$21.01
Perinatal Conditions	\$98,952,140	\$98,741,616	\$84,687	\$125,837	\$68.12
Ill-Defined Conditions	\$19,148,147	\$15,450,691	\$1,838,561	\$1,858,895	\$13.77
Injuries & Poisonings	\$29,491,351	\$9,465,452	\$9,343,804	\$10,682,095	\$23.58
All Other	\$117,680,172	\$108,233,671	\$4,196,846	\$5,249,655	\$82.56
<b>TRACER CONDITIONS</b>					
Malnutrition	\$799,110	\$574,956	\$190,566	\$33,588	\$0.57
Iron Deficiency Anemia	\$103,874	\$97,746	\$540	\$5,588	\$0.07
Asthma	\$14,384,651	\$9,287,596	\$3,075,581	\$2,021,474	\$10.63
Pneumonia	\$28,765,089	\$24,446,548	\$2,687,589	\$1,630,952	\$20.41
Acute Gastroenteritis	\$6,937,152	\$6,105,916	\$519,654	\$311,582	\$4.89

**TABLE 14.2**  
**Medi-Cal Information Involving Inpatient Stays, by Specific Diagnoses,**  
**Medi-Cal Payments for Foster Care**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	Total Under 18	Under 6 Years	Age In Years 6-11 Years	12-17 Years	\$/Eligible (Age-Adjusted)
FOSTER CARE					
Infections & Parasitic	\$1,067,121	\$827,297	\$133,378	\$106,446	\$24.37
Neoplasms	\$232,792	\$52,704	\$140,224	\$39,864	\$4.95
Endocrine, Nutritional	\$422,757	\$192,812	\$85,585	\$144,360	\$8.63
Blood	\$196,050	\$74,333	\$44,549	\$77,168	\$3.90
Mental Disorders	\$6,309,920	\$150,679	\$1,872,846	\$4,286,395	\$107.66
Nervous System	\$591,527	\$402,342	\$34,063	\$155,122	\$12.68
Circulatory System	\$257,709	\$119,364	\$21,243	\$117,102	\$5.05
Respiratory System	\$2,926,909	\$2,475,653	\$177,064	\$274,192	\$67.36
Digestive System	\$1,448,636	\$1,041,346	\$111,257	\$296,033	\$31.79
Genitourinary System	\$403,506	\$196,102	\$29,526	\$177,878	\$7.96
Pregnancy, Childbirth	\$668,039	\$17,356	\$0	\$650,683	\$9.92
Skin & Subcutaneous	\$260,514	\$101,463	\$70,724	\$88,327	\$5.29
Musculoskeletal	\$337,763	\$55,246	\$87,831	\$194,686	\$6.11
Congenital Anomalies	\$915,865	\$770,565	\$53,247	\$92,053	\$21.02
Perinatal Conditions	\$3,681,701	\$3,651,321	\$0	\$30,380	\$88.10
Ill-Defined Conditions	\$990,165	\$880,667	\$47,973	\$61,525	\$23.10
Injuries & Poisonings	\$1,041,979	\$400,979	\$164,365	\$476,635	\$20.22
All Other	\$3,210,609	\$2,459,222	\$227,984	\$523,403	\$71.73
TRACER CONDITIONS					
Malnutrition	\$30,003	\$24,501	\$5,502	\$0	\$0.71
Iron Deficiency Anemia	\$1,570	\$1,570	\$0	\$0	\$0.04
Asthma	\$635,430	\$433,576	\$66,104	\$135,750	\$13.85
Pneumonia	\$1,137,270	\$1,029,213	\$52,231	\$55,826	\$26.68
Acute Gastroenteritis	\$212,599	\$187,216	\$12,406	\$12,977	\$4.96



**TABLE 15**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Age-Adjusted Utilization Rates for Outpatient Services**  
 Rendered to Children Under 18 Years of Age During 1988  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

<b>TOTAL PROGRAM:</b>	<b>Total Program</b>	<b>Foster Care</b>
Infections & Parasitic	67.1	62.0
Neoplasms	2.2	2.3
Endocrine, Nutritional	5.5	7.2
Blood	9.9	11.2
Mental Disorders	6.9	33.3
Nervous System	98.5	102.4
Circulatory System	3.2	4.4
Respiratory System	198.5	192.1
Digestive System	40.4	31.5
Genitourinary System	18.8	24.8
Pregnancy, Childbirth	1.6	1.0
Skin & Subcutaneous	50.7	49.9
Musculoskeletal	11.2	13.5
Congenital Anomalies	6.8	10.0
Perinatal Conditions	4.2	5.9
Ill-Defined Conditions	45.7	52.4
Injuries & Poisonings	67.9	82.2
All Other	5^ 4	77.8
<b>TRACER CONDITIONS</b>		
Malnutrition	0.5	0.7
Iron Deficiency Anemia	3.0	3.4
Asthma	16.5	19.1
Pneumonia	8.9	8.2
Acute Gastroenteritis	19.5	12.5

\*Corrected Utilization Rate =  
 Users/(Avg. Monthly Eligibles x 3)  
 x 1,000.

**TABLE 15.1**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Unduplicated Users of Service**  
**Rendered to Children Under 18 Years of Age During 1988**  
**Source: California Department of Health Services, Medical Care Statistics, 1989.**

	<b>Age In Years</b>			<b>Corrected</b>	
	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	<b>Utilization Rate* (Age-Adjusted)</b>
<b>TOTAL PROGRAM</b>					
Infections & Parasitic	269,271	151,406	77,943	39,922	67.1
Neoplasms	8,584	3,733	2,387	2,464	2.2
Endocrine, Nutritional	21,126	8,822	5,840	6,464	5.5
Blood	40,160	25,418	9,237	5,505	9.9
Mental Disorders	25,889	7,467	8,789	9,613	6.9
Nervous System	402,285	263,027	94,398	44,860	98.5
Circulatory System	12,501	5,750	2,982	3,769	3.2
Respiratory System	795,327	449,758	219,391	126,178	198.5
Digestive System	164,519	109,938	33,233	21,348	40.4
Genitourinary System	70,756	27,061	16,085	27,610	18.8
Pregnancy, Childbirth	5,164	243	25	4,896	1.6
Skin & Subcutaneous	201,041	112,818	46,486	41,737	50.7
Musculoskeletal	40,910	10,943	9,977	19,990	11.2
Congenital Anomalies	27,834	18,884	5,508	3,442	6.8
Perinatal Conditions	18,503	18,407	52	44	4.2
Ill-Defined Conditions	180,246	94,450	47,833	37,963	45.7
Injuries & Poisonings	261,616	110,249	79,249	72,118	67.9
All Other	202,734	128,428	37,701	36,605	50.4
<b>TRACER CONDITIONS</b>					
Malnutrition	2,137	1,010	750	377	0.5
Iron Deficiency Anemia	12,190	8,468	2,356	1,366	3.0
Asthma	65,462	33,512	20,327	11,623	16.5
Pneumonia	37,137	27,467	6,938	2,732	8.9
Acute Gastroenteritis	80,779	59,805	14,017	6,957	19.5

\*Corrected Utilization Rate = Users/(Average Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 15.2**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Unduplicated Users of Service for Foster Care**  
**Rendered to Children Under 18 Years of Age During 1988**  
**Source: California Department of Health Services, Medical Care Statistics, 1989.**

	Total Under 18	Under 6 Years	Age In Years 6-11 Years	12-17 Years	Corrected Utilization Rate* (Age-Adjusted)
<b>FOSTER CARE</b>					
Infections & Parasitic	9,121	3,772	2,323	3,026	62.0
Neoplasms	368	112	60	196	2.3
Endocrine, Nutritional	1,151	303	247	601	7.2
Blood	1,598	811	352	435	11.2
Mental Disorders	5,494	1,005	1,339	3,150	33.3
Nervous System	14,351	7,854	3,174	3,323	102.4
Circulatory System	696	230	114	352	4.4
Respiratory System	27,890	12,750	6,546	8,594	192.1
Digestive System	4,582	2,287	811	1,484	31.5
Genitourinary System	4,210	811	689	2,710	24.8
Pregnancy, Childbirth	215	0	0	215	1.0
Skin & Subcutaneous	7,604	2,876	1,547	3,181	49.9
Musculoskeletal	2,357	374	337	1,646	13.5
Congenital Anomalies	1,368	855	256	257	10.0
Perinatal Conditions	740	731	4	5	5.9
Ill-Defined Conditions	7,884	3,123	1,678	3,083	52.4
Injuries & Poisonings	13,165	3,225	3,209	6,731	82.2
All Other	11,780	4,444	2,617	4,719	77.8
<b>TRACER CONDITIONS</b>					
Malnutrition	102	35	32	35	0.7
Iron Deficiency Anemia	475	267	102	106	3.4
Asthma	2,817	1,247	595	975	19.1
Pneumonia	1,105	756	185	164	8.2
Acute Gastroenteritis	1,734	1,046	296	392	12.5

\*Corrected Utilization Rate = Users/(Average Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 16**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Age-Adjusted Visits per User per Year**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

<b>TOTAL PROGRAM</b>	<b>Total Program</b>	<b>Foster Care</b>
Infections & Parasitic	1.4	1.5
Neoplasms	2.5	2.1
Endocrine, Nutritional	1.7	1.8
Blood	1.4	1.3
Mental Disorders	1.6	1.8
Nervous System	1.9	2.0
Circulatory System	1.4	1.4
Respiratory System	2.2	2.0
Digestive System	1.3	1.4
Genitourinary System	1.5	1.6
Pregnancy, Childbirth	1.4	0.5
Skin & Subcutaneous	1.5	1.5
Musculoskeletal	1.4	1.4
Congenital Anomalies	1.8	1.7
Perinatal Conditions	1.2	1.3
Ill-Defined Conditions	1.5	1.6
Injuries & Poisonings	1.6	1.6
All Other	1.5	1.5
<b>TRACER CONDITIONS</b>		
Malnutrition	1.2	1.2
Iron Deficiency Anemia	1.3	1.2
Asthma	2.2	2.1
Pneumonia	1.5	1.6
Acute Gastroenteritis	1.3	1.3

**TABLE 16.1**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Total Program Visits**  
 Rendered to Children Under 18 Years of Age During 1988  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				Visits/User (Age-Adjusted)
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	
<b>TOTAL PROGRAM</b>					
Infections & Parasitic	391,746	225,661	109,744	56,341	1.4
Neoplasms	21,425	8,869	7,079	5,477	2.5
Endocrine, Nutritional	35,120	13,623	9,789	11,708	1.7
Blood	55,427	34,140	13,273	8,014	1.4
Mental Disorders	41,380	10,037	14,947	16,396	1.6
Nervous System	829,904	588,145	169,525	72,234	1.9
Circulatory System	16,978	7,729	3,831	5,418	1.4
Respiratory System	1,789,519	1,078,194	470,264	241,061	2.2
Digestive System	219,375	149,210	41,577	28,588	1.3
Genitourinary System	109,567	39,299	24,411	45,857	1.5
Pregnancy, Childbirth	7,824	271	40	7,513	1.4
Skin & Subcutaneous	301,267	164,869	65,578	70,820	1.5
Musculoskeletal	59,542	14,813	14,143	30,586	1.4
Congenital Anomalies	52,544	37,113	9,563	5,868	1.8
Perinatal Conditions	25,404	25,293	63	48	1.2
Ill-Defined Conditions	261,159	135,768	68,362	57,029	1.5
Injuries & Poisonings	421,234	167,199	127,570	126,465	1.6
All Other	294,698	184,965	47,777	61,956	1.5
<b>TRACER CONDITIONS</b>					
Malnutrition	2,611	1,229	924	458	1.2
Iron Deficiency Anemia	15,303	10,637	2,914	1,752	1.3
Asthma	141,074	69,046	46,543	25,485	2.2
Pneumonia	55,973	41,722	10,182	4,069	1.5
Acute Gastroenteritis	106,656	81,711	16,495	8,450	1.3

**TABLE 16.2**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Visits for Foster Care**  
 Rendered to Children Under 18 Years of Age During 1988  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

	Total Under 18	Under 6 Years	Age In Years 6-11 Years	12-17 Years	Visits/User (Age-Adjusted)
FOSTER CARE					
Infections & Parasitic	13,408	5,608	3,300	4,500	1.5
Neoplasms	668	185	197	286	2.1
Endocrine, Nutritional	2,007	525	445	1,037	1.8
Blood	2,124	1,065	482	577	1.3
Mental Disorders	10,517	1,463	2,548	6,506	1.8
Nervous System	30,840	19,778	5,672	5,390	2.0
Circulatory System	974	344	145	485	1.4
Respiratory System	55,606	28,212	11,834	15,560	2.0
Digestive System	6,402	3,290	1,043	2,069	1.4
Genitourinary System	7,102	1,255	993	4,854	1.6
Pregnancy, Childbirth	366	0	0	366	0.5
Skin & Subcutaneous	11,714	4,158	2,263	5,293	1.5
Musculoskeletal	3,370	502	447	2,421	1.4
Congenital Anomalies	2,483	1,647	436	400	1.7
Perinatal Conditions	1,233	1,223	5	5	1.3
Ill-Defined Conditions	12,705	5,199	2,432	5,074	1.6
Injuries & Poisonings	22,019	4,785	5,079	12,155	1.6
All Other	17,723	6,857	3,441	7,425	1.5
TRACER CONDITIONS					
Malnutrition	127	44	37	46	1.2
Iron Deficiency Anemia	583	333	110	140	1.2
Asthma	5,978	2,724	1,255	1,999	2.1
Pneumonia	1,744	1,210	270	264	1.6
Acute Gastroenteritis	2,247	1,398	350	499	1.3

**TABLE 17**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Age-Adjusted Medi-Cal Payments per Eligible**  
**Rendered to Children Under 18 Years of Age During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

<b>TOTAL PROGRAM</b>	<b>Total Program</b>	<b>Foster Care</b>
Infections & Parasitic	\$7.78	\$7.50
Neoplasms	\$0.59	\$0.40
Endocrine, Nutritional	\$0.72	\$0.97
Blood	\$0.95	\$1.04
Mental Disorders	\$0.91	\$5.92
Nervous System	\$12.91	\$15.83
Circulatory System	\$0.37	\$0.57
Respiratory System	\$29.19	\$28.23
Digestive System	\$3.83	\$3.59
Genitourinary System	\$2.40	\$3.36
Pregnancy, Childbirth	\$0.31	\$0.19
Skin & Subcutaneous	\$5.03	\$5.43
Musculoskeletal	\$1.26	\$1.60
Congenital Anomalies	\$1.62	\$2.09
Perinatal Conditions	\$0.55	\$1.00
Ill-Defined Conditions	\$4.77	\$6.98
Injuries & Poisonings	\$9.44	\$12.47
All Other	\$7.90	\$12.37
<b>TRACER CONDITIONS</b>		
Malnutrition	\$0.04	\$0.05
Iron Deficiency Anemia	\$0.23	\$0.29
Asthma	\$2.32	\$2.81
Pneumonia	\$1.37	\$1.13
Acute Gastroenteritis	\$1.51	\$1.01

**TABLE 17.1**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Medi-Cal Payments**  
 Rendered to Children Under 18 Years of Age During 1988  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				\$/Eligible (Age-Adjusted)
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	
<b>TOTAL PROGRAM</b>	\$120,308,659	\$69,231,498	\$28,328,973	\$22,748,188	\$90.53
Infections & Parasitic	\$10,456,761	\$6,279,863	\$2,641,009	\$1,535,889	\$7.78
Neoplasms	\$756,841	\$297,415	\$279,338	\$180,088	\$0.59
Endocrine, Nutritional	\$915,204	\$358,068	\$248,002	\$309,134	\$0.72
Blood	\$1,268,093	\$728,591	\$334,164	\$205,338	\$0.95
Mental Disorders	\$1,110,883	\$253,918	\$372,108	\$484,857	\$0.91
Nervous System	\$17,663,501	\$12,020,202	\$3,800,897	\$1,842,402	\$12.91
Circulatory System	\$468,206	\$215,299	\$104,805	\$148,102	\$0.37
Respiratory System	\$39,310,252	\$23,784,918	\$10,079,288	\$5,446,046	\$29.19
Digestive System	\$5,163,260	\$3,318,346	\$1,044,912	\$800,002	\$3.83
Genitourinary System	\$2,967,856	\$1,058,748	\$603,168	\$1,305,940	\$2.40
Pregnancy, Childbirth	\$346,845	\$39,643	\$1,028	\$306,174	\$0.31
Skin & Subcutaneous	\$6,579,444	\$3,525,043	\$1,412,946	\$1,641,455	\$5.03
Musculoskeletal	\$1,523,940	\$395,725	\$344,622	\$783,593	\$1.26
Congenital Anomalies	\$2,209,254	\$1,536,453	\$408,539	\$264,262	\$1.62
Perinatal Conditions	\$792,557	\$789,348	\$1,998	\$1,211	\$0.55
Ill-Defined Conditions	\$6,257,478	\$3,235,504	\$1,614,101	\$1,407,873	\$4.77
Injuries & Poisonings	\$12,074,885	\$5,034,359	\$3,449,992	\$3,590,534	\$9.44
All Other	\$10,443,399	\$6,360,055	\$1,588,056	\$2,495,288	\$7.90
<b>TRACER CONDITIONS</b>					
Malnutrition	\$56,100	\$26,455	\$19,112	\$10,533	\$0.04
Iron Deficiency Anemia	\$318,389	\$214,650	\$63,167	\$40,572	\$0.23
Asthma	\$3,037,864	\$1,431,294	\$1,010,108	\$596,462	\$2.32
Pneumonia	\$1,906,709	\$1,459,621	\$297,403	\$149,685	\$1.37
Acute Gastroenteritis	\$2,101,967	\$1,600,698	\$329,329	\$171,940	\$1.51



**TABLE 17.2**  
**Medi-Cal Information Involving Outpatient Services, by Diagnoses,**  
**Medi-Cal Payments for Foster Care**  
 Rendered to Children Under 18 Years of Age During 1988  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

	Total Under 18	Under 6 Years	Age In Years 6-11 Years	12-17 Years	\$/Eligible (Age-Adjusted)
<b>FOSTER CARE</b>	\$5,467,071	\$2,279,964	\$1,145,514	\$2,091,317	\$110.62
Infections & Parasitic	\$368,606	\$156,592	\$86,283	\$125,731	\$7.50
Neoplasms	\$21,154	\$5,812	\$4,650	\$10,692	\$0.40
Endocrine, Nutritional	\$52,506	\$12,558	\$10,797	\$29,151	\$0.97
Blood	\$49,922	\$22,662	\$12,485	\$14,775	\$1.04
Mental Disorders	\$340,991	\$42,461	\$71,711	\$226,819	\$5.92
Nervous System	\$728,035	\$437,360	\$144,910	\$145,765	\$15.83
Circulatory System	\$29,380	\$10,879	\$4,873	\$13,628	\$0.57
Respiratory System	\$1,350,909	\$675,109	\$285,866	\$389,934	\$28.23
Digestive System	\$175,792	\$82,524	\$32,184	\$61,084	\$3.59
Genitourinary System	\$195,769	\$34,676	\$22,971	\$138,122	\$3.36
Pregnancy, Childbirth	\$12,954	\$0	\$0	\$12,954	\$0.19
Skin & Subcutaneous	\$281,944	\$97,681	\$52,506	\$131,757	\$5.43
Musculoskeletal	\$92,907	\$15,912	\$12,628	\$64,367	\$1.60
Congenital Anomalies	\$96,986	\$53,000	\$22,703	\$21,283	\$2.09
Perinatal Conditions	\$41,611	\$41,276	\$162	\$173	\$1.00
Ill-Defined Conditions	\$346,041	\$152,347	\$66,250	\$127,444	\$6.98
Injuries & Poisonings	\$662,813	\$177,226	\$149,354	\$336,233	\$12.47
All Other	\$618,751	\$261,889	\$115,457	\$241,405	\$12.37
<b>TRACER CONDITIONS</b>					
Malnutrition	\$2,757	\$861	\$807	\$1,089	\$0.05
Iron Deficiency Anemia	\$13,403	\$7,419	\$2,796	\$3,188	\$0.29
Asthma	\$139,117	\$58,663	\$29,967	\$50,487	\$2.81
Pneumonia	\$51,355	\$33,527	\$8,205	\$9,623	\$1.13
Acute Gastroenteritis	\$46,804	\$28,302	\$7,949	\$10,553	\$1.01

**TABLE 18**  
**Medi-Cal Mental Health Service\* Information**  
 Rendered to Children Under 18 Years of Age Paid for During 1988  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Age In Years</b>				
	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	<b>Age-Adjusted</b>
<b>TOTAL PROGRAM</b>					
Users	66,612	7,254	23,274	36,084	
Expenditures	\$73,564,773	\$3,842,748	\$25,410,931	\$44,311,094	
Corrected Utilization Rate <sup>^</sup>	17.19	4.47	17.82	38.11	18.74
Expenditures per User	\$1,104.38	\$529.74	\$1,091.82	\$1,228.00	\$922.13
<b>FOSTER CARE</b>					
Users	27,446	2,280	7,580	17,586	
Expenditures	\$31,981,081	\$1,603,272	\$9,380,962	\$20,996,847	
Corrected Utilization Rate <sup>^</sup>	180.68	49.02	165.61	294.99	159.77
Expenditures per User	\$1,165.24	\$703.19	\$1,237.59	\$1,193.95	\$1,026.00

\*Includes psychiatry, psychology, inpatient hospital psychiatric, Short-Doyle/Medi-Cal.

<sup>^</sup>Corrected Utilization Rate = Users/(Average Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 19**  
**Medi-Cal Mental Health Service Information**  
**Rendered to Children Under 18 Years of Age Paid for During 1988**  
**Users of Services**

Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years			
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years
<b>TOTAL PROGRAM</b>				
Psychiatry	11,536	1,488	3,402	6,646
Psychology	26,634	4,373	8,996	13,265
Inpatient Hospital Psychiatric	2,190	145	432	1,613
Short-Doyle/Medi-Cal Inpatient	570	4	93	473
All other Short-Doyle Medi-Cal	25,682	1,244	10,351	14,087
<b>FOSTER CARE</b>				
Psychiatry	5,484	282	1,330	3,872
Psychology	14,158	1,637	3,650	8,871
Inpatient Hospital Psychiatric	611	15	123	473
Short-Doyle/Medi-Cal Inpatient	245	2	46	197
All Other Short-Doyle Medi-Cal	6,948	344	2,431	4,173

<b>Foster Care as Percentage of Total Users of Services</b>
---

	Age In Years				
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	Age-Adjusted
Psychiatry	47.5	19.0	39.1	58.3	37.2
Psychology	53.2	37.4	40.6	66.9	47.0
Inpatient Hospital Psychiatric	27.9	10.3	28.5	29.3	22.0
Short-Doyle/Medi-Cal Inpatient	43.0	50.0	49.5	41.6	47.4
All Other Short-Doyle Medi-Cal	27.1	27.7	23.5	29.6	26.8
Foster Care Medi-Cal Eligibles	3.9	2.9	3.5	6.3	4.1

**TABLE 20**  
**Medi-Cal Outpatient Mental Health Service\* Information**  
 Rendered to Children Under 18 Years of Age Paid for During 1988  
 Source: California Department of Health Services, Medical Care Statistics, 1989.

	Age In Years				
	Total Under 18	Under 6 Years	6-11 Years	12-17 Years	Age-Adjusted
<b>TOTAL PROGRAM</b>					
Users	38,169	5,861	12,398	19,911	
Services	278,452	27,465	90,517	160,470	
Expenditures	\$20,461,231	\$2,448,983	\$6,369,683	\$11,642,565	
Corrected Utilization Rate^	9.85	3.61	9.49	21.03	10.65
Expenditures per User	\$536.07	\$417.84	\$513.77	\$584.73	\$498.66
<b>FOSTER CARE</b>					
Users	19,642	1,919	4,980	12,743	
Services	163,337	11,014	41,638	110,625	
Expenditures	\$13,001,951	\$1,187,164	\$3,207,564	\$8,607,223	
Corrected Utilization Rate^	129.31	41.26	108.80	213.75	114.13
Expenditures per User	\$661.95	\$618.64	\$644.09	\$675.45	\$643.72

\*Includes physician psychiatry and psychology (not including physicians).

^Corrected Utilization Rate = Users/(Average Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 21**  
**Medi-Cal Inpatient\* Mental Health Service Information**  
**Rendered to Children Under 18 Years of Age Paid for During 1988**  
Source: California Department of Health Services, Medical Care Statistics, 1989.

	<b>Age In Years</b>				
<b>TOTAL PROGRAM</b>	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	<b>Age-Adjusted</b>
Discharges	2,760	149	525	2,086	
Hospital Days	67,562	1,923	19,915	45,724	
Expenditures	\$25,687,980	\$585,778	\$7,827,691	\$17,274,510	
ALOS	24.48	12.91	37.93	21.92	23.97
Expenditures per Hospitalization	\$9,307.24	\$3,931.40	\$14,909.89	\$8,281.16	\$8,899.05
Corrected Utilization Rate^	0.71	0.09	0.40	2.20	0.81
<b>FOSTER CARE</b>					
Discharges	856	17	169	670	
Hospital Days	23,504	491	7,001	16,012	
Expenditures	\$9,098,340	\$170,231	\$2,746,374	\$6,181,735	
ALOS	27.46	28.88	41.43	23.90	31.67
Expenditures per Hospitalization	\$10,628.90	\$10,013.59	\$16,250.73	\$9,226.47	\$11,889.96
Corrected Utilization Rate^	5.64	0.37	3.69	11.24	4.64

\*Includes physician inpatient hospital psychiatric and Short Doyle/ Medi-Cal inpatient.

^Corrected Utilization Rate = Discharges/(Average Monthly Eligibles x multiplier of 3) x 1,000.

**TABLE 22**  
**Child Health and Disability Prevention (CHDP) Program Utilization Statistics\***  
**Services Rendered to Children Under 18 Years of Age**  
**1986-87**

Source: California Department of Health Services, CHDP, 1989.

	<b>Age In Years</b>				
	<b>Total Under 18</b>	<b>Under 6 Years</b>	<b>6-11 Years</b>	<b>12-17 Years</b>	<b>Age-Adjusted</b>
<b>TOTAL PROGRAM</b>					
Those Receiving CHDP Services	773,718	643,901	94,356	35,461	
Corrected Utilization Rate <sup>^</sup>	199.65	396.76	72.26	37.45	182.95
Those Receiving Health Assessments	751,558	625,982	91,249	34,327	
Those Indicating Need for Referral ~	158,215	129,632	19,208	9,375	
% with Referral Indicated	20.4	20.1	20.4	26.4	22.0
<b>FOSTER CARE</b>					
Those Receiving CHDP Services	22,936	11,624	4,741	6,571	
Corrected Utilization Rate <sup>^</sup>	150.99	249.90	103.58	110.22	159.97
Those Receiving Health Assessments	22,003	10,985	4,565	6,453	
Those Indicating Need for Referral ~	4,979	2,519	889	1,571	
% with Referral Indicated	21.7	21.7	18.8	23.9	21.3

\*Based on CHDP Confidential Screening and Billing Form--PM160.

<sup>^</sup>Corrected Utilization Rate = Those Receiving CHDP Services x (Average Monthly Eligibles x multiplier of 3) x 1,000.

~A referral as a result of a health assessment or test for further diagnoses and/or treatment, or follow-up code of 3,4,5, on the PM160.

**TABLE 23**  
**Child Health and Disability Prevention (CHDP) Program Utilization Statistics~**  
**Referrals for Selected Services for Children Under 18 Years of Age**  
**1986-87**

Source: California Department of Health Services, CHDP, 1989.

	Receiving Service	Requiring Referral	% Referred
<b>TOTAL PROGRAM</b>			
Health Assessment	773,718	175,181	22.6
Dental Assessment	729,875	24,036	3.3
Nutrition Assessment	749,108	15,705	2.1
Tuberculin Assessment	274,626	1,645	0.6
<b>FOSTER CARE</b>			
Health Assessment	22,003	5,255	23.9
Dental Assessment	21,694	865	4.0
Nutrition Assessment	21,933	448	2.0
Tuberculin Assessment	11,403	79	0.7

## APPENDIX B

### STANDARDS FOR HEALTH CARE SERVICES FOR CHILDREN IN OUT-OF-HOME CARE

Since children in foster care have unique health care needs, the health care delivery system should be organized to appropriately address these needs. In 1988 the Child Welfare League of America (CWLA) issued Standards for Health Care Services for Children in Out-of-Home Care based upon recommendations of a group of leading experts in children's health and welfare that was convened in 1987 by the CWLA and the American Academy of Pediatrics to discuss the health crisis for children in foster care. This document makes the following general recommendations: (1) entry point comprehensive assessments of health, mental health, and development should occur within 30 days of placement, and a continuing health care plan should be established; (2) access to ongoing culturally appropriate and geographically accessible health care should be coordinated, including preventive, diagnostic, therapeutic, and rehabilitative components, with appropriate mental health services; (3) local- and state-level-coordinated units should be established to develop and monitor health policies, practices, and implementation regarding children in foster care; (4) uniform health information should be collected through use of a medical passport and should be shared with caregivers, including foster parents and biological parents; (5) a well-defined training curriculum should be developed and implemented for foster parents and service providers; (6) interagency agreements should be established to coordinate state and local programs affecting children in foster care, and Medicaid coverage for these children should be expanded.



## **APPENDIX C**

### **COORDINATING HEALTH CARE SERVICES FOR CHILDREN IN FOSTER CARE**

In early 1989, a group of organizations and agencies co-sponsored a California Conference on Health Care for Children in Foster Care. The 150 participants at the conference, including physicians, social workers, administrators, foster parents, and policymakers, endorsed the Child Welfare League of America (CWLA) Standards for Health Care Services for Children in Out-of-Home Care and developed recommendations for adapting standards for California. The conference participants established three general principles for meeting the health care needs of children in foster care:

1. California should commit to making the health care needs of children in foster care a priority for the state.
2. The CWLA Standards for Health Care Services for Children in Out-of-Home Care should be endorsed by the state and by local agencies.
3. The Health and Welfare Agency should convene a statewide working body of the various departments serving children to refine and to implement the standards in California.

In addition to these general principles, the conference made a number of specific recommendations. Many of these recommendations support and build upon the CWLA standards.

#### **Recommendations from the California Conference on Health Care for Children in Foster Care**

1. A need for comprehensive initial health and mental health assessments
2. Improvement in access to appropriate services, with health care case management and specialized foster care homes
3. A continuum of mental health and developmental services for children in foster care
4. Reduction in social work caseloads
5. Reimbursement rates and support services for foster parents
6. Establishment of a system for health care information management including use of a medical passport and computerized data information system and clearinghouse

7. Training for foster care professionals and foster parents on health care needs and issues

8. Improved coordination of health, mental health, developmental, educational, social, and juvenile justice services at state and local levels

9. Changes in public policy including a statewide fiscal plan for children's services, foster care services access legislation, expanded Medi-Cal coverage and raised cut-off age for children in foster care

10. Consideration of Area Boards and Health Maintenance Organizations for children in foster care

## **APPENDIX D**

### **SURVEY OF FOSTER PARENTS IN CALIFORNIA**

The intention of this study was to assess the adequacy of health and mental health services in California to meet the needs of children in foster care through an analysis of utilization of these services. Currently available data systems do not allow a comprehensive analysis because appropriate need-based indicators of utilization that are necessary to evaluate the appropriateness of utilization are lacking.

A study of health service utilization of children in foster care needs to be placed in a larger context. Other factors that need to be included in such an analysis are the characteristics of the individual and family and the characteristics of the social service, child welfare, and health care delivery systems. One methodologic approach for collecting this information could be a longitudinal survey of foster children and foster families from a representative sample of California's foster children.

A similar approach has been used by the National Center for Health Statistics for their National Ambulatory Medical Care Utilization and Expenditure Survey (NAMCUES). Through this approach, the NAMCUES was able to provide a comprehensive profile of health care utilization by families. The survey includes repeated measures over time.

Another approach was taken by the National Center for Health Statistics in their National Health Interview Survey (NHIS). The NHIS employs a cross-sectional survey design and has added a Child Health Supplement.

California could develop a better picture of the health care needs, utilization patterns, and barriers to care for foster children by conducting a survey of a representative sample of foster homes in the state. Such a survey could be designed to be administered by trained telephone interviewers at much less cost than in-person surveys. We have designed a sample survey that relies on questions that were used in the Child Health Supplement to the 1988 NHIS. Including these questions would permit comparisons between the foster care population in California and other children nationally. We have also added original questions addressing the emotional and developmental needs of foster children, as well as their utilization of mental health and developmental services.

A second phase of the survey would include a smaller sample of foster homes to be selected for longitudinal study of utilization and expenditures. A draft of the California Foster Child Health Interview survey instrument is follows.

# FOSTER PARENT SURVEY

### Question

## Response Categories

**Dear Foster Parent:**

**We are trying to identify the needs and concerns of foster parents like yourself in order to provide better services for you. We would appreciate your answering the following questions as best and honestly as possible.**

**Selecting the child about whom the foster parent will respond:**

- 1 How many children currently live at your home? \_\_\_\_\_
- 2 What is the range of their ages? Youngest: \_\_\_\_\_  
Oldest: \_\_\_\_\_
- 3 How many of these children are in foster care? \_\_\_\_\_
- 4 Of them, how many have been residing there 6 months or longer? \_\_\_\_\_
- 5 What are their initials? Initials: \_\_\_\_\_  
Foster child 1: \_\_\_\_\_  
Foster child 2: \_\_\_\_\_  
Foster child 3: \_\_\_\_\_  
Foster child 4: \_\_\_\_\_  
Foster child 5: \_\_\_\_\_

*(The computer will now randomly select one of these children and displays his/or her initials on the screen)*

**For the rest of the interview, please answer about \_\_\_\_\_ (child's initials).**

## GENERAL CHILD INFORMATION

- 1 Age (in years) of \_\_\_\_\_:
- 
- (years) months, if <36 months)
- 2 Child's Sex:
1. Male
  2. Female
- 3 Child's Ethnic Background:
1. White
  2. Hispanic
  3. Black
  4. Asian/Pacific Islander
  5. Am.Indian/Alaskan Native
  6. Filipino
  7. Mixed Race (Specify) \_\_\_\_\_
  8. Other (Specify) \_\_\_\_\_
  9. DK

# FOSTER PARENT SURVEY

## Question

## Response Categories

### PLACEMENT INFORMATION

1 Why was this child placed in foster care?

1. Sexual abuse
2. Physical abuse
3. Severe Neglect
4. General Neglect
5. Emotional abuse
6. Exploitation
7. Abandonment/Caretaker Incapacity
8. Child's disability
9. Relinquishment
10. Disrupted Adoptive Plmt
11. Voluntary placemt
12. Positive drug tox screen at birth
13. Law violation by biologic parent
99. DK

2.a At what age was this child first placed in foster care?

\_\_\_\_\_ years

\_\_\_\_\_ months

2.b Total number placements of this child prior to the current one (approximate if necessary): \_\_\_\_\_

3.a Are you related to this child?

0. No

1. Yes

9. NA

3.b If yes, what is your relationship?

1. Aunt or Uncle
2. Grandparent
3. Step-parent
4. Other relative (specify) \_\_\_\_\_
5. Not related

### FOSTER PARENT INFORMATION

*(Do not ask, but circle respond)*

What is the respondent's sex?

1. Male

2. Female

1 About how long have you been a foster parent?

\_\_\_\_\_ years

\_\_\_\_\_ months

2 Approximately how many foster children have you cared for during this time?

\_\_\_\_\_ foster children

3 What is highest grade you completed?

- 1.-12. Grade
13. Some college
14. Completed college
15. Graduate school

Give Grade: \_\_\_\_\_

5 Have you ever received any special training in foster care?

0. No

1. Yes

Type: \_\_\_\_\_

# FOSTER PARENT SURVEY

## Question

## Response Categories

### SCHOOL

Ask the following questions for children  $\geq 36$  months

- |   |  |  |                  |              |
|---|--|--|------------------|--------------|
| 1 | Has ____ ever attended school, including preschool?      | 0. No  | 1. Yes           |              |
| 2 | What grade is the child in or will be in?                | 21. Nursery or preschool   | 22. Kindergarten | Grade: _____ |
| 3 | Overall, what kind of student would you say ____ is now? | 1. One of the best<br>2. Above the middle<br>3. In the middle<br>4. Below the middle<br>5. Near the bottom |                  |              |

### BIRTH HISTORY

- |     |   |   |        |               |
|-----|---|---|--------|---------------|
| 1   | Do you have any information about this child's birth history? | 0. No   | 1. Yes |               |
| 2.a | Was this child born prematurely?                              | 0. No   | 1. Yes | 9. Don't know |
| 3   | Do you know if this child exposed to drugs in utero?          | 0. No<br>1. Yes, very certain<br>2. Yes, suspected<br>9. Don't know |        |               |

### HEALTH SERVICES UTILIZATION

Now we would like to know about ROUTINE care, including routine checkups and immunizations when nothing is wrong.

- |     |  |   |        |  |
|-----|--|---|--------|--|
| 1   | How long has it been since ____ last visit to a clinic, health center, hospital, doctor's office or other place for routine health care? | 0. Never<br>1. Less than 1 month<br>2. 1-3 months<br>3. 4-6 months<br>9. Don't know |        |  |
| 2.a | Is there a particular clinic, health center, doctor's office or other place that ____ usually goes to for routine health care?           | 0. No   | 1. Yes |  |

## FOSTER PARENT SURVEY

Question	Response Categories		
2.b. What kind of place is it?	1. Home 2. Private doctor's office or private clinic 3. Hospital outpatient clinic 4. Hospital emergency room 5. Community, neighborhood or family health center 6. HMO/prepaid group 7. Walk-in/emergency care center 8. Other clinic (Specify) _____ 9. Other place (Specify) _____		
3. During the past 6 months, about how many nights did _____ spend in the hospital because of some health condition?	_____ Number of nights	9. Don't Know	
4. During the past 6 months, about how many times did someone talk to a medical doctor or assistant about his/or health?	_____ Number of visits	9. Don't Know	
5. During the past 6 months, did health problems make it necessary for _____ to use any medicine other than vitamins, that a doctor prescribed or told _____ to take?	0. No	1. Yes	9. Don't Know
<b>Thinking about the medical care this child has received in the past 60 days, do you agree or disagree with the following statements?</b>			
	Agree	Disagree	Not sure
6. I'm very satisfied with medical care this foster child received	1	2	3
7. In an emergency it's very hard to get medical care for this foster child	1	2	3
8. I can get medical care for this foster child whenever I need it	1	2	3
9. It's hard to get an appointment for medical care right away for this foster child	1	2	3
10. It's hard to find information about where I should go when this foster child has a health problem	1	2	3
11. Most doctors are very careful to check everything when examining this foster child	1	2	3

# FOSTER PARENT SURVEY

## Question

## Response Categories

### HEALTH PERCEPTIONS

Please read each of the following statements, and then circle one of the numbers on each line to indicate whether the statement is true or false for this child. There are no right or wrong answers.

- |   |   |
|---|---|
| 1 This child's health is excellent.                               | 1. Definitely true<br>2. Mostly true<br>3. Don't know<br>4. Mostly false<br>5. Definitely false |
| 2 This child seems to resist illness very well.                   | 1. Definitely true<br>2. Mostly true<br>3. Don't know<br>4. Mostly false<br>5. Definitely false |
| 3 This child seems to be less healthy than other children I know. | 1. Definitely true<br>2. Mostly true<br>3. Don't know<br>4. Mostly false<br>5. Definitely false |

### CHILD DEVELOPMENT

- |  |   |                            |               |
|--|---|----------------------------|---------------|
| 1 Has ____ ever had a delay in growth or development?  | 0. No   | 1. Yes                     | 9. Don't know |
| 2 <i>For children &gt;= 36 months:</i><br>Has ____ ever had a learning disability?   | 0. No   | 1. Yes                     | 9. Don't know |
| 3 <i>For children &gt;= 36 months:</i><br>Has ____ ever had an emotional or behavioral problem that lasted 3 months or more? | 0. No   | 1. Yes                     | 9. Don't know |
| 4.a Has ____ ever seen a psychiatrist, psychologist, or counselor about any emotional, mental, or behavior problem?          | 0. No   | 1. Yes                     | 9. Don't know |
| 4.b Is ____ currently seeing a psychiatrist, psychologist or counselor?  | 0. No   | 1. Yes                     | 9. Don't know |
| 4.c How are these visits paid?   | 1. No charge<br>2. Medi-Cal<br>3. Other public assistance<br>4. Special funds<br>5. Out of pocket<br>6. Other | _____ Type?<br>_____ Type? |               |



# FOSTER PARENT SURVEY

## Question

## Response Categories

- 5 During the past 6 months, have you felt, or has anyone suggested, that \_\_\_\_\_ needed help for any emotional, mental, or behavioral problem?

0. No

1. Yes

### SERVICE CHECKLIST

We would now like to know what services you have used for \_\_\_\_\_.

	Yes, used these	No, did not use	Tried to use, but could not get services
Medi-Cal for medical care	1	2	3
Other services for medical care Who paid for them?	1	2	3
Medi-Cal for psychological care	1	2	3
Other Psychological or Mental Health Services Who paid for them?	1	2	3
Regional Center	1	2	3
Developmental Services	1	2	3
Special Therapy For what?	1	2	3
Special Nursery	1	2	3
Child Care	1	2	3

## **NOTES**

- 1 All figures and tables can be found in Appendix A.
- 2 Others are placed in guardianship, die, are abducted, refuse services, or are incarcerated.
- 3 The data for this report classified children in foster care if they were selected from the following Medi-Cal aid categories: 40, 42, 44, 45, 46, and 47.
- 4 Population estimates were provided by the California Department of Finance, 1989.
- 5 The conference was co-sponsored by the Alameda County Social Services Agency, the American Academy of Pediatrics, the Center for Child Protection at San Diego Children's Hospital, the Center for the Vulnerable Child at Children's Hospital Oakland, the Children's Research Institute of California, the California Department of Social Services, California Department of Mental Health, California Department of Developmental Services, the Institute for Health Policy Studies at the University of California at San Francisco, the Juvenile Court Judges of California, the Los Angeles County Division of Children's Services, the School of Social Welfare at the University of California at Berkeley, the Youth Law Center, and the National Center for Youth Law.

## REFERENCES

- California State Department of Social Services, Sacramento, CA, 1987, 1988.
- Center for the Study of Social Policy. The Use of Medicaid to Support Community-Based Services to Children and Families. Working Paper Series FIN-1. Washington, DC: Center for the Study of Social Policy, 1988.
- Chasnoff, I. J. "Drug use in pregnancy: Parameters of risk." In B. Zuckerman, M. Weitzman, and J. J. Alpert, eds. The Pediatric Clinics of North America 35(6) (1988):1403-12.
- Chasnoff, I. J., K. A. Burns, and W. J. Burns. "Cocaine use in pregnancy: Perinatal morbidity and mortality." Neurotoxicology and Teratology 9 (1987):219-93.
- Child Welfare League of America. Standards for Health Care Services for Children in Out-of-Home Care. Washington, DC, 1988.
- Children's Research Institute of California. California Foster Care Network Shelter Care Study. Sacramento: Children's Research Institute of California, 1984.
- Finnegan, L. P., and B. A. MacNew. "Care of the addicted infant." American Journal of Nursing 74(4) (1974):685-93.
- Frank, G. "Treatment needs of children in foster care." American Journal of Orthopsychiatry 50 (1980):256-63.
- George, C., and M. Main. "Social interactions of young abused children: Approach, avoidance and aggression." Child Development 50 (1979):306-18.
- Green, A. H. "Psychopathology of abused children." Journal of the American Academy of Child Psychiatry 17 (1978):92-103.
- Halfon, N., and L. Klee. "Health services for California's foster children: Current practices and policy recommendations." Pediatrics 80(2) (1987):183-91.

- Hochstadt, N. J., and P. K. Jaudes. The MAPS Project: Medical and Psychosocial Screening. Chicago: La Rabida Children's Hospital and Research Center, 1984.
- Householder, J., et al. "Infants born to narcotic-addicted mothers." Psychological Bulletin 92(2) (1982):453-68.
- Kavaler, F., and M. Swire. Foster-Child Health Care. Lexington, MA: D.C. Heath and Co., 1983.
- Kinard, E. M. "Emotional development in physically abused children." American Journal of Orthopsychiatry 50 (1980):686-96.
- Klee, L., and N. Halfon. "Mental health care for foster children in California." Child Abuse and Neglect 11 (1987):63-74.
- Kliman G. W., M. H. Schaeffer, and M. J. Friedman. Preventive Mental Health Services for Children Entering Foster Home Care: An Assessment. White Plains, NY: Center for Preventive Psychiatry, 1982.
- Lewis, D. O., C. Mallouh, and V. Webb. "Child abuse, delinquency, and violent criminality." In D. Cicchetti and V. Carlson, eds. Child Maltreatment. New York: Cambridge University Press, 1989.
- Ostrea, E., and C. Chavez. "Perinatal problems (excluding neonatal withdrawal) in maternal drug addiction: A study of 830 cases." Journal of Pediatrics 94 (1979):292-95.
- Perloff, D. Trends in Pediatrician Participation in State Medicaid Programs. State Report for California. Working Paper no. 11A. Elk Grove Village, IL: American Academy of Pediatrics, 1985.
- Pers, J. S. Government as Parent: Administering Foster Care in California. Berkeley: Institute of Governmental Studies, University of California, 1976.
- Reidy, T. J. "The aggressive characteristics of abused and neglected children." Journal of Clinical Psychology 33 (1977):1140-45.
- Runyan, D. K., and C. L. Gould. "Foster care for child maltreatment: Impact on delinquent behavior." Pediatrics 75 (1985):562-68.
- Schor, E. L. "Foster care." Pediatrics in Review 10(7) (1989):209-16.
- Schor, E. L. "The foster care system and health status of foster children." Pediatrics 69 (1982):521-28.
- Soman, L. A., L. Klee, and N. Halfon. Meeting the Health Needs of Children in Foster Care: Implementing National Standards in California. A report from the Task Force on

Foster Care, California Conference on the Health Care of Children in Foster Care, September 1989.

Swire, M., and F. Kavalier. "The health status of foster children." Child Welfare 56 (1979): 635-53.

U.S. Congress, Office of Technology Assessment. Children's Mental Health Problems and Services--A Background Paper. OTA-BP-H-33. Washington, DC: U.S. Government Printing Office, December 1986.

Wald, M. S., J. M. Carlsmith, and P. H. Leiderman. Protecting Abused/Neglected Children: A Comparison of Home and Foster Placement. Palo Alto: Stanford Center for the Study of Youth Development, 1985.

Weston, D. R., L. Klee, L., and N. Halfon. "Mental Health." In Conditions of Children in California. Berkeley: University of California, PACE, School of Education, 1989.